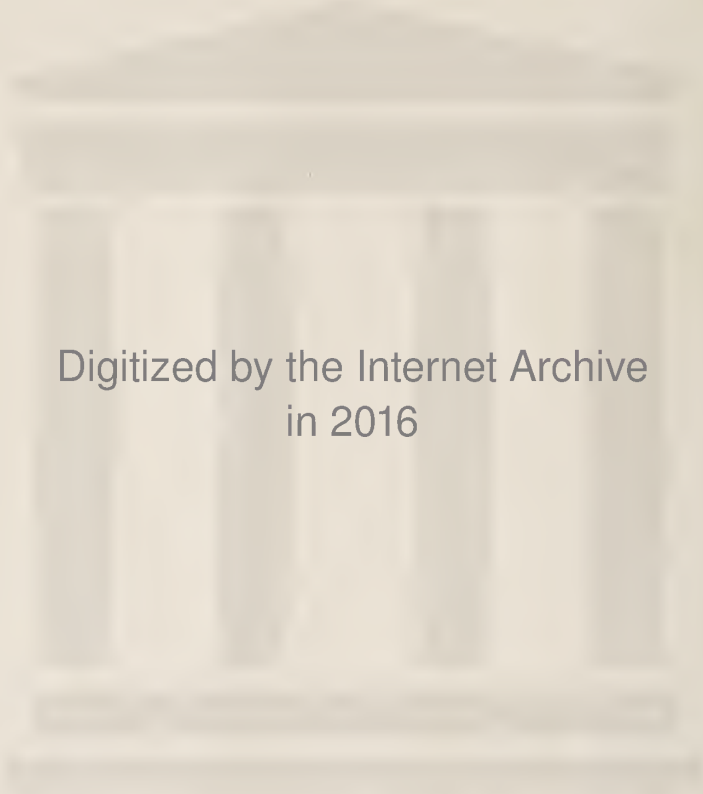


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# PHOTO - ERA

The American Journal of Photography

AN ILLUSTRATED MONTHLY

OF

PHOTOGRAPHY AND ALLIED ARTS

Volume XXXV

JULY, 1915, TO DECEMBER, 1915, INCLUSIVE

PUBLISHED BY

WILFRED A. FRENCH

383 BOYLSTON STREET, BOSTON, U. S. A.

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**To Advertisers:** Advertising-rates on application. Forms close on the 5th of the preceding month.

**Published Monthly** on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain,** Houghtons, Ltd., 88-89 High Holborn, London, W. C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

WILFRED A. FRENCH, Ph.D., Editor and Publisher

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383 Boylston Street, Boston, Mass., U. S. A. Cable Address, "Photoera"



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LOMBARDY POPLARS  
JOHN H. GARO





# PHOTO - ERA



The American Journal of Photography

Vol. XXXV

JULY, 1915

No. 1

## Architectural Photography

ROBERT W. TEBBS

*Illustrations by the Author*

**A**N architectural photographer, like an artist, must have an unexplainable something, call it temperament or genius, if he ever expects to make a success of that branch of photography. An artist may take a pupil out into the field or the crowded city, place the easel for him and point out the particular view to be painted; and if the student has any ability, he will produce a satisfactory picture. But the laying-on of the paint, no matter how skilfully done, will not make a success of the picture if the viewpoint has not been correctly chosen in the first place.

This truism applies just as fully to the architectural photographer. The photograph is useless to the architect unless it is "composed" right, and it is that one thing that is so difficult to teach to the amateur and, in some cases, to the professional. The photographers that are to-day making a success in this field — and by success I do not mean simply a living — have either had a special architectural training or else were fortunate enough to be born with a peculiar sense that tells them exactly where to place the camera to get the right view. At times it is possible to explain to the beginner why the camera is so placed; but more often it is impossible. You feel that you have the exact spot, but cannot impart that knowledge to another. Therefore, it is with a certain diffidence that I am going to try to explain the taking of architectural subjects as I see them. I could far better take you to the building you wish to photograph and show you where I would take it from and explain why; but as that cannot be done, I say at the start that, unless you are gifted with the particular "sense," your picture will lack a certain something which, while unexplainable, is the main essential of the photograph.



In architectural photography the following suggestions will ensure a well-lighted picture in a majority of cases: A building facing north should be photographed either on a bright cloudy day when the sun is momentarily obscured, or, far better, early in the morning. In New York City almost any building facing north can be photographed from 7 till 9.30 in the morning. A sharp perspective looks well if taken at that time towards the east; a front view the same.

A building facing south can be photographed almost any time of day, particularly out in the country. First study your building and see what part you, or the architect, want to show. A front perspective can be taken best up to noon from the west looking east, and after noon from the east looking west. The later in the day (or the earlier) the longer the shadow, and the longer the shadow the more relief will be given to an otherwise flat and uninteresting surface. Buildings facing east and west should rarely be photographed from the south. Of course, there are many exceptions to these suggestions; but it seems to me that they rule in the majority of buildings.

Guide-books tell you to have the sunlight come over either shoulder. This is not the case, as has been explained already. It is further illustrated by two photographs of the J. P. Morgan Library. The first was taken according to book-teaching, and the effect is flatness in the general surface. In the view reproduced you will notice immediately the roundness given to the columns and the relief to the modeled figures on the wall. The second picture was taken towards the east at 8 o'clock in the morning; in other words, almost into the sun. The view of the Albright Art-Gallery is somewhat different in



treatment, the sun being at almost right angles to the lens. Here you will notice that the whole picture "breathes" sunlight, although so little of it is on the building. The taking of this picture required some study. The building being long and low, the tendency was towards a strip-picture, or, in other words, a picture 6 x 14. I finally found the bush that appears in the foreground and used that to break up the sky-line, thereby producing one of my favorite photographs. Some writers advise the use of a branch held in the hand when a tree is not available; but this requires a lot of study and must be done exactly to obtain the correct illusion. This "breaking-up" of the sky-line and often a bare wall is something I always urge my operators to do whenever such a course is possible.

The lighting of the interior is another problem altogether. The constantly growing dread of flashlights has prevented many fine interiors from being photographed. But in these days of inventions, interiors, where there is any kind of electric current, can be taken with little effort. The Mahler light and the new nitrogen lamp I keep constantly in use. The Little Theater, in New York, was taken entirely by the use of



NATURAL LIGHT AIDED BY AN ARC-LIGHT

the stage "bunch" lights. In this theater there is absolutely no daylight. I find also that the color-values are fifty per cent better in a photograph taken by electric light than in one taken by flashlight or daylight. I have been able to get the most beautiful results this way without the use of a ray-screen. Constantly moving the light kills the harsh shadows, and beautiful results can be obtained in this manner. Of course,

if there is no electricity and not enough daylight, the blow-lamp can be used; but the mess and the danger, no matter how experienced the blower, make the use of such a lamp undesirable. Twice, in the most unexplainable manner, my assistants have had a blow-lamp backfire and no plausible or satisfactory explanation can be given by the manufacturers as to why this happens.

An apt illustration of the flashlight-nuisance occurred during the writing of this article. Some photo-



J. P. MORGAN LIBRARY, S A.M., CAMERA POINTING EAST





A WIDE-ANGLE INTERIOR

tographers obtained permission to photograph the interior of the Bramhall Playhouse, one of the smallest legitimate theaters in the world. In order to get through in a hurry, or because of ignorance, three open flashes were used. In consequence the ceiling and two places on the wall were severely scorched. And when you consider that the ceiling is laid-on gold-leaf, you can imagine the reception we got when we asked for the same permission. It was only by explaining our system of lighting that we finally obtained consent. We did the entire work in two hours after entering the theater, using one 10,000-watt nitrogen light as a source of illumination.

The arranging of the furniture is another problem that requires careful study. I suppose that I am inviting criticism when I say that the furnishing of the home is one of the most neglected studies in America. It seems to be cus-

tomary among the very wealthy to leave the entire furnishing of the home to a professional decorator and furnisher. I have photographed many such homes and, although there are many exceptions, the majority are thoroughly unattractive. I recall particularly a trip to the northern part of New York where the owner, worth several millions, took me through the house, calling my special attention to the William and Mary room, the Louis XV room and others, until, at last, we came to a room filled with all kinds of odds and ends, and I well remember the smile of his face when he said to me, "And this, Mr. Tebbs, is where we live."

Another well-known gentleman showed me through his luxurious and correctly furnished and decorated apartment on Fifth Avenue, and

when we had gone all through, he said, "I don't know that you will find anything worth photographing here, as you did on the other floors (referring to another apartment in the same building); but this is my home and not a museum."

Unless the owner of the house is particularly fussy, the photographer will rarely have any difficulty to arrange the furniture so as to make



THE IMPROVED EFFECT WITH A 14-INCH LENS



INTERIOR, THE BANK OF TORONTO  
ROBERT W. TEBBS







HOME-INTERIOR BY NATURAL LIGHTING  
ROBERT W. TEBBS





A SOUTHERN EXPOSURE AT NOON

the most satisfactory photograph. The less furniture, the better, is my idea; but the placing of the few pieces, so as to give the impression of a fully furnished room, is one of the problems that the photographer has to solve for himself. One piece of silver on the sideboard is far preferable to the entire family-collection. As few knick-knacks as possible is also a good rule to follow. If you find that a white object — be it a marble statue or other disturbing object in the picture — would look better if placed in another spot, or removed entirely outside the range of the lens, arrange the picture with an eye to a harmonious result. Sometimes a chair, a table or other piece of furniture would look better if moved a little out of its regular place, without, of course, interfering seriously with the regular arrangement of the apartment.

I have seen splendid photographs of interiors with a part of a chair showing in the foreground, when it would have looked better pushed into the picture-space, or pulled away entirely. Try to avoid, if possible, only a part of a lighted window when it might look better to include the whole of it. Last year I had three photographs rejected by a certain architect because he claimed the frames on some of the pictures did not suit the architecture of the room. But I think the duties of a photographer cease before

it comes to taking down the pictures. But care should be used if there are any pictures that will show in the photograph that you are going to make. I have seen some promising results spoiled by reflected light on the glass of a picture. A wad of paper, a match or pencil, placed behind a corner of the frame will, in almost all cases, obviate this horror, and the tilt to the frame will not be noticed in the finished



A NORTHERN EXPOSURE AT NOON

picture. In seriously disturbing the general appearance of a furnished room, with the view to obtaining a satisfactory result, it is well to work in harmony with the owner, unless he gives you a free hand to make desirable changes.

Keeping the lens lower than half the height of the room seems to me to be a good rule to follow. Many pictures are spoiled by having the lens too near the ceiling. A little care will soon overcome this common fault.

Many architects agree with me that it is better not always to use the wide-angle lens for interior-work. A large detail is infinitely preferable to a large interior, where most of the detail has to be sought for with the aid of a magnifying-glass. Take the interior of the Bank of Toronto, illustrated here, for example. All of the detail is clearly shown. A photograph taken from the same point with a wide-angle lens was immedi-



ately thrown aside by the architect as soon as he saw the other picture.

Sometimes my operators return from an assignment with a long tale of woe because they cannot find any place from which to take the photographs required. The Equitable Building is a case in point. The way to find out from whence to get the entire front of that building is very simple. Go to the base of the building and, bearing the focal length of your lens in mind, look around to see if you cannot locate, within photographing-distance, a roof or window preferably less than half the height of the building to be photographed. When you find this roof or window, walk along the entire front of the building you want to photograph and, if you can see this place for the entire distance, you can rest

assured that the camera, placed on this spot, will include a good view of the entire building. If you have to work much below the center of the object desired, be sure to tilt up the front of the camera as well as to raise the lens; then correct the lines with the swing-back. A simple method to ascertain if your lines are going to be true is to sight along the back of the camera and, if your ground-glass is true with any other straight building, the lines of the building you are photographing will be just as straight. Here, again, I strongly advise against the use of the wide-angle lens. Some photographers think that the use of this lens for tall buildings is all right. I differ with them. Get away from the object you are going to photograph. If you want to look at the Woolworth Building, you do not go and

stand on the sidewalk underneath it. You cross City Hall Park and then you see it as the architect intended you should. Photographs of the front of that building have never appealed to me; whereas the view from the rear, showing it rising up from a mass of smaller buildings, seems to me to express the majestic feeling that the building is supposed to inspire. It is said that this view cuts off the base of the building. I feel that it would be just as sensible to criticize a painting of a person because the artist had neglected to paint the legs and feet. A 14-inch lens on an 11 x 14 plate seems to produce a good proportion. I realize that this cannot always be done; but I think wide-angle work is carried to the extreme, in many cases. The surroundings are as much a part of the photograph as the building itself, and assist in expressing the ideas of the architect. Otherwise the wood or clay model or builder's draw-



SUNLIGHT AND SHADOW

ing of the building might just as well be used for illustration-purposes.

Another essential for the architectural photographer is a knowledge of, at least, the rudiments of architecture. One of my first experiences brought this forcibly to my mind. An architect wanted some drawings copied and mounted in a certain way. He said, "Put the elevation on top and the perspective below."

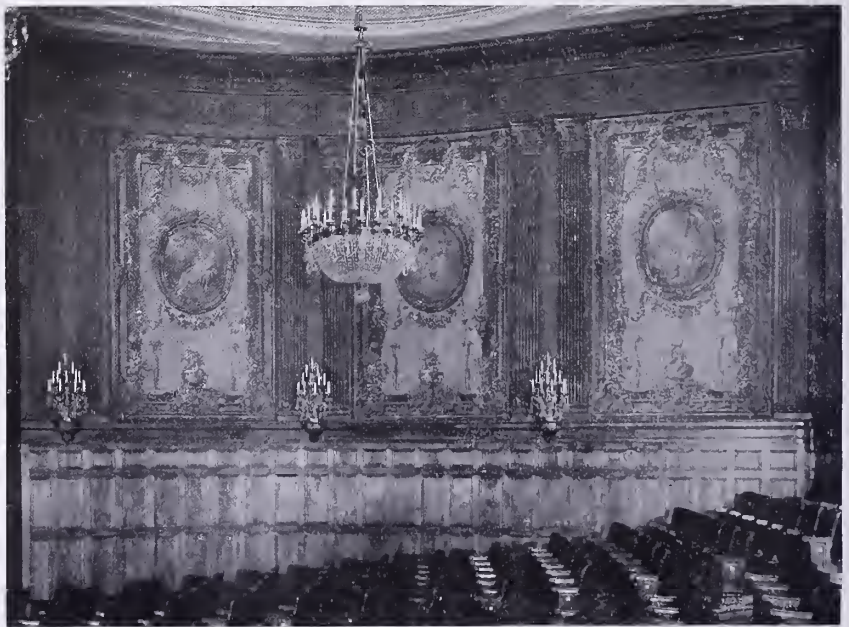
I did not know what he was talking about and, not wishing to display my ignorance, failed to ask, and so did the job backwards. He not only refused to pay for the work done, but I have never, to this day, received any work from his office. The photographer should know, at least, enough about the subject, so that when an architect talks to him he can listen intelligently. One of the most successful men in the profession to-day, Julian Buckley, was formerly a practising architect, and two others, the Wurtz Brothers, equally well known, were formerly for a period of several years draughtsmen in an architect's office.

I use the Stand-



A PORCH LIVING-ROOM BY NATURAL LIGHT

and Orthonon plate almost exclusively and can recommend it highly to any photographer. I have tried all kinds of plates and know of no others that give such all-around satisfaction.



THE LITTLE THEATER, NEW YORK, ILLUMINATED BY BUNCH LIGHTS



The developer used is no secret — anybody can use it by simply following the directions.

SOLUTION 1

Water .....	27 ounces
Pyro .....	1 ounce
Metol .....	1 dram

SOLUTION 2

Sodium carbonate  
Hydrometer test, 40

lens when photographing interiors. Give the full time you think right, and then add five minutes more for good luck. You can do something with an overtuned plate, whereas the undertimed one is useless.

DON'T try to work with a book of instructions in one hand and an actinometer in the other. You will learn more from experience in one week than you will find in books in a month.

DON'T try mechanical means of printing and developing just to save yourself a little trouble.



AN OBLIQUE LIGHTING ON A SOUTHERN EXPOSURE

SOLUTION 3

Sodium sulphite, 70 to 80

For use, take 1 part of each to 12 parts of water, adding two or three drops of potassium bromide, ten-percent solution.

If the reader has had patience to follow me thus far, I will close with a few don'ts well worth putting into practice.

DON'T tackle a big job without first having looked over the place to ascertain when best to make certain views.

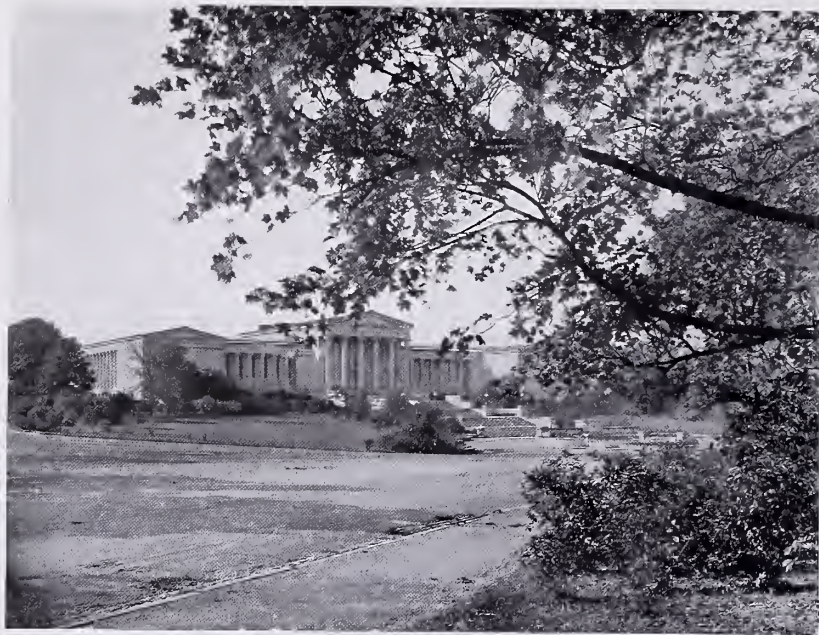
DON'T be in too great a hurry to close your

Mechanical devices are good for snapshots ; but try to finish architectural work that way and you will soon lose your grip.

DON'T think that you know all about the game and refuse to listen to a suggestion. The person that thinks he knows it all, is usually just about ready to learn the rudiments of the game from a superior workman.

DON'T blame me if, after reading this article, and trying to follow the suggestions given, you don't succeed. Nobody can teach you if you have not yourself — somewhere in your system — the rudiments of the art.





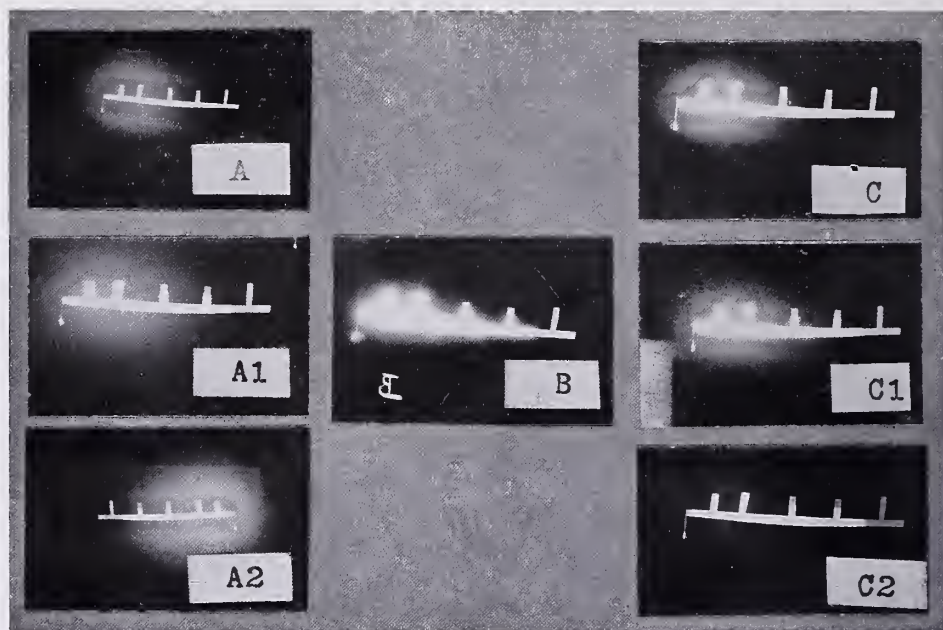
ALBRIGHT ART-GALLERY, BUFFALO  
HALL OF FAME, NEW YORK UNIVERSITY  
ROBERT W. TEBBS





INNOCENCE  
L. L. HIGGASON





HALATION-TESTS

PHILIP CONKLIN

## How to Prevent Halation

PHILIP CONKLIN



**C**URIOSITY prompted the writer recently to make some tests on the subject of halation, and one result was so decidedly superior to all others that it was thought the fraternity might be interested because of the frequency of strong contrasts in professional work.

From a strip of opaque card a design was cut as shown by the accompanying prints. The different legs were covered with various thicknesses of onion-skin paper in the ratio of 1, 2, 4, 8 and 16. This was placed against a strong, artificial light, so that the only rays reaching the lens came through this design.

Several exposures were made, and as allowance for different emulsion-speeds of film was considered, they may safely be considered to be equal.

- A Plain plate.
- A1 Plain plate, backed.
- A2 Plain plate, glass to lens.
- B Film. Note how closely to the opening the halation remains.
- C Double-coated plate.
- C1 Double-coated plate, with screen in contact with film. (See text.)

C2 Double-coated plate, developed  $1\frac{1}{2}$  hours in metol-hydroquinone without carbonate.

With this one exception the plates were all developed with a standard pyro-soda developer. All prints were exposed alike and developed the same time in the same developer.

I had a theory that halation was partly a lateral motion caused by the overexcited silver molecules overlapping one another, and that it might be ameliorated by placing a screen of fine opaque dots in contact with the plate, the idea being that the dots would leave unaffected parts in the film, wherein the overexposed molecules might expand without encroaching on their neighbors. On this basis test C1 was made. There seems to be nothing to it.

The formula for the developer without carbonate has been published, but I give it again. Where the credit belongs for this, is not known.

Metol .....	6 grains
Hydroquinone .....	30 grains
Sulphite .....	120 grains
Water .....	40 ounces

Develop for one to two hours.



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A VIENNA BELLE  
MADAME D'ORA





A ROAD NEAR MANILA

R. W. SQUIRES

## An Automatic Photographic Plate-Washer

WILLIAM L. FUCHS

**T**HE photographic plate-washer opposite has been used by me for more than twenty years and has always done its work to my full satisfaction. Hypo-stains have never appeared in any of my plates which have been placed in this washer for one-half hour.

There is complete elimination of hypo due to the many changes of water, and there may be as many as the user may wish, this being done by turning on the water from a faucet full head or only sufficiently to fill the box every two or three minutes. The operation is very simple, as follows: Place the box in a sink or laundry-tub under the faucet, turn on the water and when the water has reached the level of the top of the plates it will spill over through a spout into the small metal box, which, when filled, will raise the lead plug in the adjoining space which will let the water out through an opening in the partition between the plug and plate-spaces.

Several small holes should be punched through the small metal box which will let the water out in the same duration of time that the large plate-space is emptying, after which the lead plug will drop and the large box will again fill

and spill over, and this will continue indefinitely while the faucet is turned on and no watching will be required.

A copper or zinc box is recommended for the small one, or metal may be used for the entire apparatus. A rubber ball weighted with shot will answer for a plug and will be easily adjustable to the weight of the water-laden small box. The splash-board prevents splashing of water on the plates, thus preventing frilling of the emulsion. The emulsion side of the plates should face the outlet-end of the box. A little leakage in the joints does no harm, but the partition between the plate-space and box-space should be tight. This washer can be made easily at a small cost by any photographer who possesses the least ingenuity. When made of wood the joints should be put together in white lead and then the whole thoroughly painted so that it will last for an indefinite period. Copper wire should be used for suspending the metal box and string or twine should be used for the plug.

The drawings shown are for a washer to accommodate one dozen 5 x 7 plates, but the plate-space may be made of any dimension desired, as the principle of operation is the same.

# A Writer's Camera

K. W. BAKER

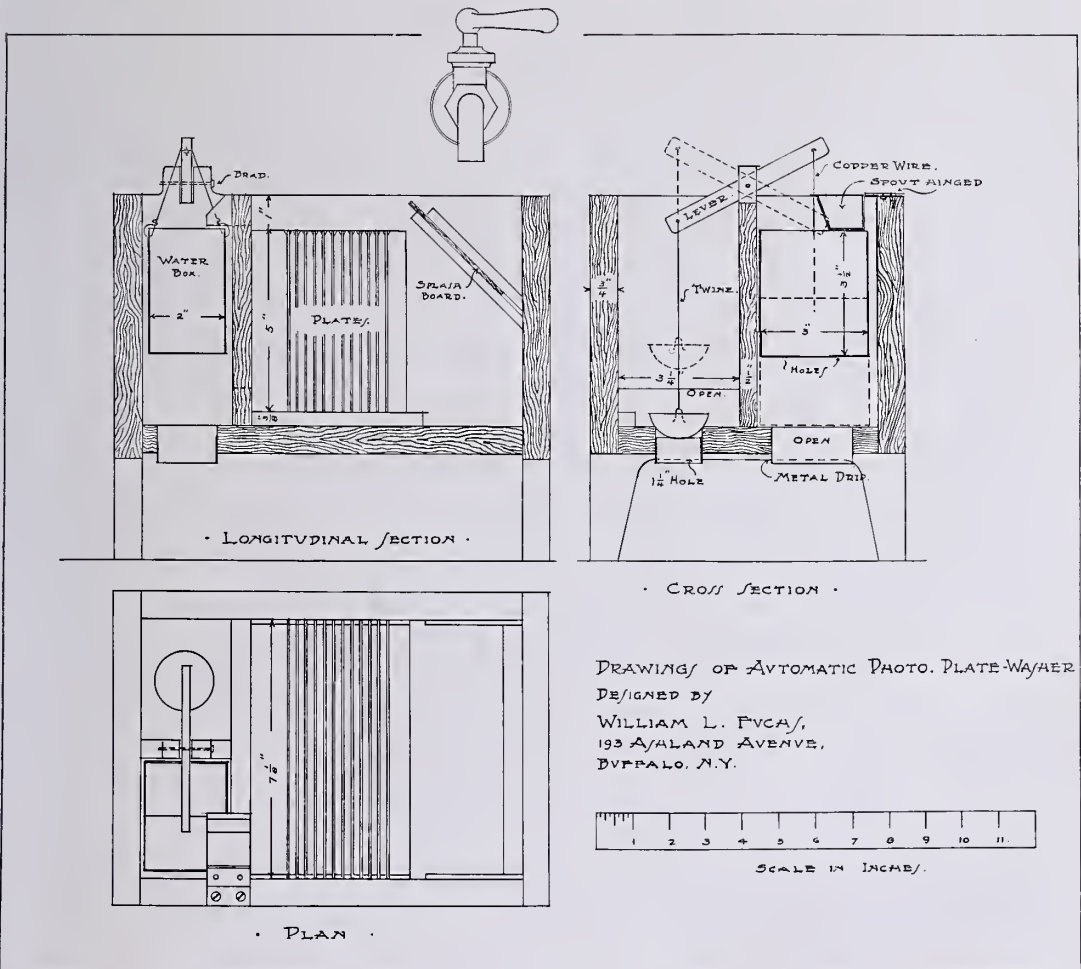


FEW years ago a relative gave me a 3A Kodak. Unfortunately, he could bequeath very little knowledge with the gift, for he had survived one of those brief but virulent attacks of "cameritis" which leave certain people permanently immune. They smile pityingly forever afterwards upon other enthusiasts, and offer the one comment that if you want to get rid of your money, amateur photography is a good, quick way.

It should have been a terrifying assurance to me, for my chief concern was how to earn money, not how to get rid of it. And, in the teeth of

his skepticism, I determined to make my camera help me. I had read that it could be done; so I thanked him whole-heartedly for the instrument and bade him go hence with his advice.

I had been a sort of free-lance for a good many years, giving to my writing all the time I could spare from other necessary work, and I knew a good many of the ins and outs of that fascinating pursuit. I knew that other writers found the ability to illustrate certain of their articles a great help in placing them, and I had many times felt the need of the ability myself. The only question was, if I spent more money in learning to make usable pictures than I







THE PHANTOM OF THE AIR

Copyright, 1915, Charles H. Flood

Barham-Bitt.

earned from the articles they illustrated, where would my profit come in? But the lure of the camera turned the scale. If the worst came to the worst, I firmly decided it would come in knowledge acquired and the fun of acquiring it. And it has.

But the worst has not come to the worst. True, I have made only a beginning, and I still find the extent of my ignorance humiliating and grotesque. I have not even learned to finish my own pictures — merely to plan and “take” them. I have not dared (considering my duty to my pocket-book) to turn myself loose in a darkroom. Nevertheless, I have accomplished my first object: I have learned to get pictures that I can use to illustrate my own articles. What is more, I have sold them, and beheld them in real magazines, with my own eyes. I had a sonnet once — under my “literary name” — in *The Atlantic Monthly*: but I don’t think that I was any prouder of it than I was of those first published pictures of mine.

When I began, I didn’t know an overtuned print from an undertuned one. “Composition” I knew vaguely as a term artists conjure with. And, strange as it may seem, there was not an artist or a photographer in the whole range of my acquaintance to guide my first wavering steps. The one professional photographer in our little town was of the grumpy variety — a rare, but very real, species, to whom one does not take one’s abysmal ignorance for diagnosis. The one way open to me was to study photographic books and magazines, and I took it. It is so limitless and so fascinating that my one difficulty is to hold myself sternly in the plain path of my practical purpose, instead of constantly straying off into all sorts of delightful ramifications which require more money and leisure than I can yet command.

And herein, I think, is the secret of laying that ubiquitous ghost of the amateur, “It’s so expensive!” Whether you are ambitious to make money with your camera, or whether you are simply under the strict necessity of keeping your photographic expenditures within bounds, the same rule will apply. Don’t try to do everything at once. Learn first — then do. Concentrate on one aim, one phase of the subject, at a time. Study every picture you make; compel each one to add at least one grain of knowledge to your store. Furthermore, study the pictures of others. If you have more gray-matter than money, why not get a large part of your knowledge with no other expenditure than a little intelligence and concentration, instead of by the costly method of disastrous experience? I think that I have learned more by studying the com-

ments and criticisms upon prints published in photographic books and magazines than in any other way. As in every science or art one may, if he will, profit immensely by the mistakes of others similarly engaged, and by studying their failures as set forth in magazine-criticisms avoid doing likewise in his own subsequent work.

As will be surmised from the foregoing, I am a strong believer in the expediency of tackling one set of processes at a time: in other words, I think it is far better for the beginner not to attempt to finish his own pictures. There is enough to be learned about the problems of exposure, choice of subject, composition and the powers and limitations of his own camera and lens to occupy anybody for an indefinite length of time. The next process, I think, should be printing, leaving developing for the last.

A word about filing negatives. If you have the remotest notion of making any practical use of your pictures, some systematic, definite method of filing is imperative. I was constantly in despair over the difficulty of “keeping up” with my negatives, so as to be able to find what I wanted when I wanted it, until I read somewhere of the plan of filing each film worth keeping in its own envelope, with a print pasted on the outside, and such data as I wished for reference written on the back. It seems an elaborate and expensive method, but it saves more than it costs. For economy’s sake I use an ordinary letter-size envelope; it will just hold my postcard-size negatives. I buy the envelopes by the box and use the boxes for filing-cases. Furthermore, I divide them into groups, such as “Outing-Scenes,” “Automobiles,” “Children,” “Curiosities,” “Celebrities,” “Negro-Types,” “Historic Places,” “Farm-Scenes,” etc., using pieces of colored cardboard to separate the groups. In this way, when I need pictures to illustrate a certain subject, I can look through my collection quickly and see what I have that is available.

Let no one imagine, from my sternly practical attitude throughout the foregoing remarks, that I have no interest in photography save as a means to an end. On the contrary, one of my dreams of heaven — to paraphrase Kipling — is of a place where

“Only the masters shall praise us, and only the masters  
shall blame;  
And no one shall work for money, and no one shall  
work for fame;  
But each for the joy of the working; and each, in his  
separate star,  
Shall own a whole flock of black boxes — and all of  
the lenses there are!”





BLACK HEAD, MONHEGAN

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MONHEGAN SPRUCES

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KATAHDIN

BERTRAND H. WENTWORTH

## Photography as a Means of Expression

BERTRAND H. WENTWORTH

WHEN my little cousin inquired whether an illustration in her book was "from a real picture or from a painting," she revealed a mental attitude towards photography that is quite common enough, though not commonly so well expressed. This attitude of mind is familiar to us in the arguments of those who contend that there is no place for photography among the fine arts, because, they say, however beautiful a photograph may be, it is a literal picture, a faithful, mechanical record of all that was before the lens; while a painting is an interpretation of an essential beauty of the subject, a personal expression of that beauty. The difference between that point of view and that of the child lies in the fact that, to the child, the "real picture" is entitled to the higher place. That is a *naïve* assumption, to be sure; but, I hope that no reader of this article will take umbrage if I point out that there is an element

of *naïveté* also in the assumption that a photograph may not be a personal interpretation of beauty.

Let me disclaim, in the beginning, any intention to enter the lists in behalf of the claims of photography to recognition as a fine art. Enough has been written for and against that claim; and, moreover, my attitude towards the controversy is one of indifference. I am disposed to grant without an argument the superior claims of other mediums of pictorial expression of beauty, for that accords with my own estimate of them. Among them painting is supreme, because the painter may use color, because he has the widest latitude in which to find personal expression, and because his art is an inheritance from the ages.

Nonetheless, I hold that photography is a worthy medium for the expression of beauty; that within its field there is already much room



to make that expression a personal interpretation of beauty; that if there be bounds to that personal expression, photography has as yet hardly beat its wings against them. I am indifferent towards the controversy, because I believe that photography will attain its best development as a means of expression if it be not too much concerned about the popular verdict of its precise position; and if, while learning as much as it may from the fine arts, it strives not to imitate them, but to work out its own destiny, unhampered by tradition, and content if beauty be found and expressed.

We are thus not concerned here in comparing the painter's means with those of the photographer, though it is quite impossible to write of photography as a means of expression without seeming to do so. I have said that photography should learn as much as it may from the fine arts. From them the photographer may learn to employ all the elements of good composition, save only those which depend on color. He may employ the principles of balance; he may provide an entrance and an exit to his picture; he may use the line of beauty or the line of strength; he may use unity, or units with subordination, gradation and contrast. To these he may add — by the proper choice and use of his lenses — simplicity, suggestiveness, reserve and mystery. These are *his* rightful inheritance, too, from the fine arts, and their employment is in no proper sense imitative of them.

So far I have spoken of what may be done in the field, and in the first steps in the darkroom, by the proper use of lenses, plates and screens, in the service of a trained perception of the pictorial. There is not space in a short article to go into the technique of the profession; suffice it to say that in the laboratory each and all of the elements that he has succeeded in developing in his plate are plastic in the hands of the skilled operator. Here he may choose, eliminate, soften, emphasize, give greater breadth or concentration, and in a hundred ways modify the field-result to bring his picture nearer to his personal conception of the beauty involved. Indeed, in the laboratory, no less than in the field, the personality of the worker may enter into the final picture, and that, too, without any departure from photographic means, as is the case in certain treatment of negatives, and in certain methods of printing, in which the control is manual, and so more akin to the brush-work of the painter.

To most readers of PHOTO-ERA, of course, the methods of the pictorial photographer are well known. I ask the indulgence of such for having reviewed them briefly for the benefit of those

less familiar with the subject. Of the latter, those who have followed me so far, and who have gathered from the foregoing that the pictorial photographer exercises choice and control in many ways, are now prepared to understand what was meant when it was said that it is a *naïve* attitude of mind that sees in the photograph only a literal and mechanical result; and to appreciate how much reserve there is in the pictorial photographer's accustomed quiet assent to the comment he so often hears: "You must have a very fine lens!" It is as if one were to attempt to flatter a painter by saying: "You must have some very fine brushes!"

In one respect, at least, the photographer need not feel that, in his quest of beauty, he is encumbered by any inherent disadvantage. In the *recognition* of beauty, even the painter is on the same footing with him. Because pictures express beauty as seen by a person, the element of personality in them is one of the greatest. That element exists to its full before the painter has set his canvas on easel, and no less before the photographer has opened the camera. If the photographer's perception of beauty is duller than that of the painter, it is not because he uses the lens; if the painter's is the more keen, it is not because he uses the brush.

The task of each is to express the beauty he sees or conceives. How far either will succeed, will depend upon the flexibility of his means and upon his mastery over them. The superior flexibility of the painter's medium has already been granted; and the claim has been made that the photographer's tools are so far responsive to his control as to yield results that are personal interpretations of beauty. It remains to point out some of the peculiar advantages of the photographer's means, which are, in my opinion, important enough to give photography a character that is distinctive, and to justify my view that photography should look to its own strength and work out its own destiny, not hampered by the traditions of other means of expression, and not seeking to imitate them.

The most obvious merit of the lens is its power to render drawing faithfully. Its very perfection in this respect is also one of its inherent defects, since it will not slight where false drawing or alteration would enhance the beauty of the picture. There is, however, an important corollary to this very evident proposition — one that is not so well understood, nor often enough turned to advantage. In the *choice* of lenses there is the means of flexibility in drawing, and there are many cases in which the less faithful drawing will be the more beautiful. Again I lack space to go into technical explana-



BREAKING WAVE

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SNOW

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tion; but I hope the reader may be helped to grasp the truth of this claim when I confess that in several of the accompanying illustrations I have employed an exaggerated perspective to enhance the beauty of the picture.

Another obvious advantage of photography, in the expression of beauty, is its power to render subtle gradations of tones and atmosphere. In the hands of the skilled worker, who knows how to use all the means at his command, both in the field and in the printing-room, the results in this direction leave little to be desired; and it will be granted, I think, that the painter equals them only through his advantage in the use of color.

These advantages are the more obvious, but not in my view the greatest of those at the command of the pictorial photographer, in his interpretations of beauty. The greatest of them is the power to make an instantaneous record; for, because nature and life are never wholly at rest, their supreme moments of beauty are always fleeting and the camera can catch them on the wing.

The pictures reproduced with this article are not submitted as the best evidence of the soundness of the positions I have here taken. Much better examples of photography that rises above the literal and mechanical could be found. It may interest the reader, however, if something of their history is explained a little, so far, at least, as such explanation will give point to what I have said, particularly as to the last-mentioned — the power to grasp a fleeting beauty.

The essential elements of the Katabdin picture were preconceived, *i.e.*, before I had ever seen this mountain. First, the mountain itself must present a typical contour; clouds must be over it and cloud-shadows on it; in the foreground the waters of the mountain must tumble over the rocks of a cataract; in the middle-distance there must be a forest of conifers. These were conceived to be the essential elements to interpret the intimate life of the mountain. Six days were spent in finding these elements combined in an agreeable composition, and two days more in awaiting the proper lighting before the exposure was made.

So much, by the way: but here is the point: the lighting sought, and finally used, had a total duration of perhaps five seconds — 250 times as long as was needed to record that fleeting beauty.

In "Snow," the composition and lighting were sought at every opportunity for three winters; the precise lighting desired lasted only long enough to make the path in the desired direction and a single exposure.

In "Monhegan Spruces," the foreground-group of trees had been studied from time to time through four seasons before a way was found to separate their peculiar beauty from those of other natural features that dominated and overshadowed them. At last came the conception of them in the stress of the elements that stunted them. When the day came, and all else was in readiness, a patient hour was spent in awaiting the precise density of blowing fog to silhouette the trees — one plane against another. That condition came but once, and in a flash was gone.

In "Black Head," the composition and lighting were studied for many days before the point of view was chosen; then there were many fruitless visits to the spot, when clouds seemed likely to complete the composition agreeably; finally the thrilling moment, when the tide was right at the right hour and the soft atmosphere enveloped all. The exposure was made, and immediately the camera was put in its case for a hurried trip to another subject that was also awaiting that particular condition. Even then the combination was broken, the shadows had crept too far, the light had been obscured by the clouds. Not again that day, nor that month, nor that year, would even a near approach to that particular type of beauty occur.

It is, indeed, the exception and not the rule, in my experience, when the critical moment is not thus fleeting; so that I have come to believe that nature's supreme moments of beauty are always momentary, and to count the power to record them instantly one of the greatest of the powers of the photographer's tools.

At the end let me say again, that I am not here pleading for recognition of photography as a fine art. If such recognition comes, it will be by achievement rather than by pleading. Art is old and photography is in its early youth. Who that reflects upon its wonderful development within the period of his own recollection will be so bold as to define the limits of its possible achievements?

My plea is rather to those who are pioneers in its progress as a medium of expression of their love of the beautiful. To them I would say: Be concerned with your own limitations rather than with fancied limitations of your craft. Seek not to imitate the crafts of others. Yours is not a new way of painting, nor a new way of etching. Your craft is a thing apart, with distinctive merits of its own. Develop these sincerely. Be content if you find beauty and, in your chosen craft, the means to express it fluently to others, and find your best reward in the love of your work.



AT ANCHOR

BERTRAND H. WENTWORTH





PHOTOGRAPH OF A BLACK-AND-WHITE LINE-MAP

F. SHERMAN VOGT

## Black-and-White Reproductions

F. SHERMAN VOGT

**P**RESENTED with the dignified title of Official Photographer in an Engineer's Office of the U. S. Army, and assuming the responsibility of making reductions of maps of the Ohio River, with a scale of 500 feet to 1 inch, plans of locks and dams drawn on trac-

ing-cloth, progress-photography of field-work, lantern-slides, enlargements and more, I began with only 3A amateur experience.

The above-named work was new in the office and a selection of equipment was necessary. The decision was a 14 x 17 Fohner & Schwing cam-

era with a Bausch & Lomb-Zeiss Tessar IIB lens fitted with an Auto-Studio shutter. This was placed upon a horizontal frame or track 15 feet long, having on the end a vertical board for the subject, which might be raised and lowered. In the center of the board was cut a 14 x 17 hole, into which was fitted a cover, flush with the board. This may be removed and replaced by a kit. Two clusters of lights were then procured, each having five 100-watt tungsten lamps and an aluminum reflector, using one on each side of the frame, and shifted backwards and forwards, as the camera's position was changed to regulate the size of the reproduction.

This provided, in came an order, a tracing 26 $\frac{3}{4}$  x 44, to be reproduced 11 x 14. After many trials and tribulations, prints were obtained that satisfied those in charge.

Cramer Contrast plates were used, and the formula recommended by the manufacturer, with the diaphragm at F/16 and an exposure of 20 minutes. The negatives were lacking in contrast, showed reflections, and were uneven in density.

Not satisfied with results and determined to perfect my work, I sought numerous friends of the profession and procured formulæ, suggestions, etc., a few of which are given herewith, and all of which were tried, but without results:

Diffuse lights, with proper agent — use tracing-cloth. Place white cloth on each side of the subject for reflectors, and hood the lens. Innumerable formulæ.

With all the valuable information, but still dissatisfied, I came to the conclusion that I knew more about engineering than photography. Never say die is my motto, and after much deliberation I decided that the light was not of the right actinic value, and that more light was necessary, so I wrote for it. After receiving as much correspondence as a jewelry mail-order house during Christmas, I began an elimination-contest, and finally purchased two 50-inch mercury-vapor lamps, one right- and one left-reflector.

A tracing was then brought, tacked on the subject-board, and with a Cramer Contrast plate was tested for correct exposure, which, to my surprise and delight, was found to be 15 seconds at F/16. This made me feel fully equipped for any work, and I prepared for my interesting efforts, or experiments.

The print accompanying this article will show the results obtained, working with the diaphragm at F/32 and an exposure of 90 seconds. The lights were placed about 4 feet from the copy-board, with no diffusing-agent, the lens was hooded, sheet-reflectors were placed on each

side and above the subject or drawing, Cramer Contrast plates were employed with the following developer:

A	
Hydroquinone .....	160 grains
Sodium sulphite .....	1 ounce
Water .....	16 ounces
B	
Sodium carbonate .....	2 ounces
Potassium bromide .....	80 grains
Water .....	16 ounces

Use equal parts of A and B

Tracings were made from the originals at a cost of approximately \$50 each, for a \$100 a month draughtsman required fifteen days to trace them. With a camera a copy can be made for about \$3, which includes the cost of plate, chemicals, Azo print and pay of operator. In the former estimate, the cost of the tracing-cloth or blue-print paper was not included. We must also take into consideration the fact that the first method will not equal in workmanship the reproduction made with a camera. Blue-prints are bulky and hard to read by the average person, whereas a black-and-white is readily comprehended. In field- or construction-work, a 12-inch print is handled much easier than a large 44-inch blue-print. We should not forget the fact that blue-prints may also be made from negatives and furnished to contractors or bidders at a less cost than black-and-white, and for these purposes they are quite as satisfactory.

You may think the original cost of such an equipment enormous, but, as an example, make fifty reproductions on plates at a cost of \$150, and then calculate the cost of having them traced, say at one-half of my estimate, which would amount to \$750. What do you now care for expenditure on equipment?

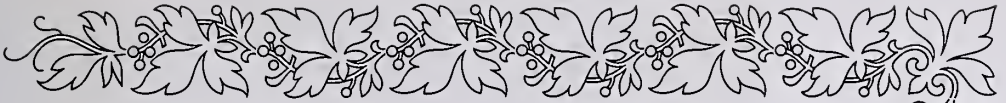
If an enlargement is wanted, remove the 14 x 17 door, or cover from the copy-board, replace with an 8 x 10 kit and negative, then place the lights behind the board, put bromide paper in the camera-holder, and expose accordingly.

In conclusion, I want to recommend this method of reproduction for the work of architects, manufacturers, railroads, and all that resort to making quantities of tracings, and will gladly give detailed information to those who are interested, for I know that you will profit by my experience, both in quality of work turned out and cost to yourself.

✕

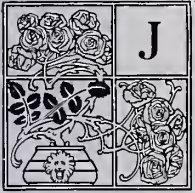
A MAN's heart must be in his skill and a man's soul in his craftsmanship. — *Mabie*.





## Floral Compositions

WILLIAM S. DAVIS



JUST as flowers are universally admired, so good pictorial studies have always proved popular, and, considering the control which can be exercised over their arrangement, this branch of photography is not only pleasant, but an ex-

cellent means of studying line- and space-composition. Then, too, many plants lend themselves well to the formation of flat decorative designs suitable for various uses, such as page-borders, headings and greeting-cards, to name only a few applications. In work of this kind one negative, if properly planned for, can be employed as a unit for the production of a repeating pattern, or a reversal of the design obtained by turning the negative about for one print of each pair, in this manner securing a symmetrical line-composition.

With so wide a list to select from it is difficult to single out a few specimens as being better adapted to the work than others; but, for decorative applications particularly, the longer stemmed plants are more easily adapted to the formation of special patterns, and among those of this class may be mentioned the various ferns, both wild and cultivated, the narcissus group and more flexible stemmed lilies; while many wild bushes and flowers, like the pussy-willow, field-daisy and golden rod make interesting material, and of course blossoming branches of fruit-trees and twigs of the evergreen-family must not be overlooked.

In the matter of color, white, yellow and pink flowers lend themselves best to monochromatic reproduction; for while it is quite possible to translate even a deep crimson into its true monochrome value by the use of panchromatic plates in conjunction with a suitable filter, the result in the case of floral studies would hardly be attractive, as the dark gray tone (while relatively true) would be a poor substitute for the rich coloring of the original. Sometimes, however, one or two crimson flowers might be used with others of a lighter hue for the sake of introducing a contrasting note in the tonal scheme.

As a rule, one should avoid mixing several kinds of flowers in one composition; but some

light ferns or grasses are at times useful to assist in the line-arrangement in a group of cut specimens, and, as already suggested, the same varieties of blooms in different tints will combine well, such, for instance, as white and various shades of pink in a carnation- or rose-bouquet.

Simplicity in design will produce by far the most pleasing results, and this is obtained more readily when the material is limited to a very few sprays or blossoms, which also allows a clearer rendering of form in the individual specimens. If, however, the nature of the subject is such that it seems essential to use more, the best way is to mass the flowers in such a manner as to obtain a broad distribution of tones which will make a pleasing "spot" or tone-pattern, rather than attempt to show single flowers prominently. The style of treatment adopted in this respect would naturally depend much upon the characteristics of the specimens dealt with; for, aside from any difference in educational value, it is only good taste to suggest, so far as circumstances permit, the general grouping of the flowers as they appear in their growing-state. This, of course, does not mean that it is always desirable to attempt a literal copy in working with cut specimens — only if it is natural, for example, for one to hang down or droop, or another to blossom in clusters, such facts may be kept in mind when the style of composition is being worked out; or if the latter has already been settled with a definite purpose in view, the proper flowers selected which will best adapt themselves to it.

The question of whether to include a vase or jar in the composition is another matter which has to be considered. In many instances it is better omitted, particularly when it is desired to concentrate full attention upon the flowers alone; but there are times when a suitable holder will lend a sense of stability to a group — also in studies of the still-life class, in which flowers are employed in conjunction with accessories. In all cases, however, plain glassware, jars and





bowls of dull-toned pottery, metal or woven material, should be employed rather than those with striking ornamentation, which are too assertive for such use.

When a holder of opaque ware is used, or the vase not included, the grouping of the specimens is made easier by employing wet sand or clay instead of clear water, as the stems will stay in place when inserted in either of the materials named. It is also considered best to keep cut flowers in water for several hours before photographing to avoid their drooping during an exposure, which might occur by slight changes in shape occurring if used immediately after gathering.

If a cover is used upon the table or stand for inclusion in the picture, it, too, should be either perfectly plain or of very subdued pattern, and of a tone harmonious with that of the background. Very pleasing effects are often obtained, however, by arranging the subject upon a polished table and utilizing the reflections as part of the general design. I have spread out flowers loosely upon a sheet of glass laid over a piece of dark material for a similar purpose.

The selection of a proper tone for the background really requires a careful consideration as that given the grouping of the flowers; for it must not be forgotten that in any composition the tone which fills the spaces between objects is quite as much a part of the pattern or design as the latter. An absolutely black ground is generally objectionable because it destroys atmosphere, or the feeling of space between it and the group, besides making a design of violent contrasts if the flowers are at all light in color; but since the tone of any background is affected by the amount of light which falls upon it, as well as its reflecting-power, it is occasionally possible to use black material in such a manner that the ground will not appear quite black in the finished picture; so in considering the matter of suitable tints it will be understood that I have reference to the tone in the picture. Most light flowers



THE SUNLIT DAFFODIL

WILLIAM S. DAVIS

appear best against some shade of gray, the depth of the latter depending somewhat upon whether the stems and leaves of the specimens are a pale or dark green; for if we wish to give emphasis to the flowers, the tone of the background should be nearer that of the foliage than the blossoms. Sometimes a ground of lighter tint than the flowers can be used successfully, but in such a case it is necessary to keep the entire tonal scheme very delicate, particularly the shadow-portions of the flowers themselves.

Aside from regular prepared backgrounds, various material can be utilized, for as a rule only small sizes are needed. Natural-toned m-sized burlap is useful when it is desired to indicate some texture, while a few sheets of mounting-paper in assorted shades of gray are always handy; also a piece of gray cotton blanket. Any of these are readily fastened with thumb-



SUNSHINE AND LILIES

WILLIAM S. DAVIS

tacks to a drawing-board or canvas-stretcher of suitable size when needed. Sometimes an agreeable border-effect in the background is produced by attaching a smaller sheet of paper to another of different shade.

There is opportunity for many delightful experiments in lighting, as even a slight alteration in direction or intensity of illumination produces a marked effect. If the object is to obtain a decorative flat pattern, composed simply of the contrasting local tones of the material itself without the addition of light and shadow, one may obtain this best by a flat diffused light falling full upon the subject. To render fine surface-texture best and the fullest relief or perspective, a soft side-lighting should be chosen, the degree of contrast between lights and shadows being regulated by its intensity. Aside from those just mentioned, there are many beautiful effects

brought about by unconventional methods, such as letting direct sunlight shine through flowers with delicate translucent petals; taking them against the light or utilizing shadows cast upon the background as part of the design, an example of the latter treatment being shown in the illustration, "Sunshine and Lilies." This was taken from a clump of Easter-lilies while growing out of doors near the side of a house. A plain sheet of cardboard was placed against the house, however, as a background to avoid the horizontal shadows cast by the clapboards.

Growing-plants in the open frequently afford very interesting studies of an entirely different character than any which could be had indoors, but are more difficult to handle successfully, on account of making them compose well and controlling the lighting, to say nothing of the possibility of movement due to wind. Regarding the first- and last-named points, thin stakes (or better, wire rods which can be bent as desired) will frequently prove of use if stuck in the ground just back

of the stems, which are then tied in place with fine thread. If proper care is taken to observe the natural curves of the plant-stems, there is no danger of producing a stiff effect by such means.

Early morning or late afternoon light is usually the best for floral subjects out of doors, and if the composition is inclined to display sharp contrasts, a hazy or cloudy day should be chosen; or if the group is small enough to make it convenient, a piece of white muslin suspended over it will diffuse the light in a satisfactory manner.

While sufficiently clear definition is desirable to prevent loss of characteristic texture in different parts, it is not always essential in pictorial flower-studies to aim for perfectly sharp definition — there is a decided difference between the two — so I would advise using the largest lens-stop which will give the former quality, for by



A STUDY OF ROSES  
WILLIAM S. DAVIS





so doing better feeling of space and a certain stereoscopic relief is obtained, and the danger of blurring, either by gradual drooping of petals or sudden movement by a passing gust of wind, proportionately reduced. Of course the size of stop should be determined by examination of the image on the focusing-screen, but I have usually found F/11 or F/16 small enough, and by reference to my note-books find one or the other was used for all the accompanying pictures. By exercising a little care to arrange various parts of a group somewhere near upon one plane, a relatively large stop can always be used.

Since exposure depends upon a number of variable factors, I will only say that in every case it should be on the full side. An exposure-meter which measures the strength of the light by test-paper is helpful; but additional allowance must be made for variation in colors and the range of contrast present, knowledge of which must be gained by experience.

Color-sensitive plates are the kind to use. A rapid grade of orthochromatic or isochromatic serves well for all colors except reds, which require a panchromatic variety for proper translation, together with a filter of suitable depth.

While a ray-filter is not an absolute necessity

in ordinary cases, if a group is composed of practically one color-scheme, it is a good plan to use one even with white flowers, on account of making it easier to preserve details and relative values of leaves and blossoms at the same time. One which increases the normal exposure from three to four times works very well when dealing with tints of yellow or pink, but for strong orange or red a deeper one is preferable, say a six- or eight-time filter.

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BIRGE HARRISON has said that there is only one rule in art: "Thou shalt not paint two pictures on one canvas," and this is simply another way of saying that unity must always obtain. The purpose of the picture, the subject and the method of treatment having been determined, care must be taken to see that nothing is allowed to enter that might detract from the effect. This does not mean that there must be no contrasts — contrast is one of the most valuable instruments that the artist has to work with, but merely that the contrasts must not be excessive and that no incongruity should be included. — Paul Lewis Anderson in *Pictorial Landscape-Photography*.







PORTRAIT

FEDORA E. D. BROWN





## EDITORIAL

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### The Office and the Man

THAT the success of a body of workers, such as a photographers' association, depends to a high degree upon inspiring leadership, has been shown to be true in the light of practical experience. Even amateur photographic societies — composed, as they frequently are, of capable and well-to-do business-men — pass out of existence for the lack of a capable and resourceful director. To accomplish results, an organization must have a lofty and definite purpose, genuine enthusiasm and an adequate treasury. The executive board must stand and labor for the best interests of the association, and this can best be done when each official acts conscientiously and without any personal considerations. Graft of every description must be rigidly excluded. Of course, in nearly every respectable organization or social club there may be individual cases of exploitation for private gain; but sooner or later they are discovered and eliminated.

It is very much to be feared that this species of individual is found in some of our larger photographic societies. If so, such an unfortunate condition may be ascribed to the indifference or complacency of the members, who do not, as a rule, seem to manifest sufficient interest in the choice of the men who are to guide the destinies of the association. They do not seem to appreciate the importance of selecting the right men to work for the society's welfare — the men best qualified to spend its money. Too much is taken for granted. Then comes the disillusionment. It may appear that little or nothing for the benefit of the great photographic fraternity has been accomplished, and the treasury is empty! What's to be done? Is it not because the average organization is run on the lines of professional politics instead of sound business-principles? It is a notorious fact that men are elected to responsible offices, the tenure of which is only one year. When the year is up, and the incumbent has barely had time to become accustomed to the duties of his office, he is required to make room for a successor. It matters little how creditably he has acquitted himself — out he goes! Such are the exigencies of our elective system, which is responsible for the endless chain of mediocre service which characterizes a phase of our national life. The right man — when they are lucky enough to get him — has

simply no chance to show what he can do; nor is this fair to his constituents. How long would a mercantile establishment last if conducted on such a basis? Here a manager or employee is given, at least, a chance to demonstrate his ability. If he gives a good account of himself, he is retained for an indefinite period and advanced according to his merits.

If so important an organization as the Photographers' Association of America, for example, were to revise its constitution, so that its chief executive could be chosen for a term of, let us say, four years, it would provide an opportunity for greater accomplishment. If the right man were chosen — a photographer of conspicuous ability and scrupulous personal honor — he would have an opportunity to do himself justice and to achieve results of permanent benefit to the Association. Fortunately, the treasurer is elected for a term of three years, and if the right man has been selected, he succeeds himself. Members of the National Association remember with gratitude Frank R. Barrows, who filled the office of treasurer for a period of nine years with such fidelity and zeal that he was chosen unanimously president of the Association in 1909.

There is no question that in many organizations, political or otherwise, certain offices are at the mercy of ambitious and not always disinterested individuals. Instead of the office seeking the man, he seeks the office. Sometimes the candidate is a man of high character; then, again, his reputation will not tolerate the light of day. Very often a man is elected to a high office merely because he is a good fellow. The fact that he has not paid his bills and has been identified with several questionable enterprises, seems to be no barrier; but it is known just the same. If he is elected, does he honor the high position as chief executive of a distinguished body? Let us suppose that his successor is a man of high moral rectitude. In what way does he benefit by the fact that the office has just been vacated by an individual of dishonest proclivities? The election of any man or woman to an exalted position should be regarded as a recognition of meritorious achievement, or, at least, of an honorable past. If this idea could always be in the minds of the voters, there would be little cause to complain of wasted opportunities and depleted treasuries.



# PHOTO-ERA MONTHLY COMPETITION

*For Advanced Photographers*

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition,  
333 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15 unless they are packed with *double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer*. Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize-collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards — Interiors with Figures

Closed April 30, 1915

*First Prize:* Alfred W. Cutting.

*Second Prize:* W. R. Bradford.

*Third Prize:* Mabel Heist Bickle.

*Honorable Mention:* Mrs. Wilfred Clarke, Dr. Rupert S. Lovejoy, Alexander Murray, L. Vinton Richard.

Special commendation is due the following workers for meritorious prints: Edna Blackwood, Theodosia P. Chase, C. S. Dickinson, Karl Fichtner, Wesley Heebner, W. Miznuma, R. D. Noyes, W. H. Sargent, D. Vincent Smith, Cordia B. Thomas.

## Subjects for Competition

"Outdoor-Sports." Closes July 31.

"Public Buildings." Closes August 31.

"Clouds in Landscape." Closes September 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.

"Nature-Study Subjects." Closes April 30.



Photo-Era Prize-Cup

In deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## Change of Address

MANY of our subscribers wish to have their addresses changed on our mailing-list during the vacation-months of summer. In order to avoid delay in the receipt of PHOTO-ERA, and possible loss in forwarding, we urgently suggest that all requests for changes of address be sent to us before the 5th of the preceding month, as the envelopes must be addressed and classified for mailing on the 20th.



IN WAR-TIME — A TEST OF COURAGE

ALFRED W. CUTTING

FIRST PRIZE — INTERIORS WITH FIGURES

## Public Buildings — Photo-Era Competition

Closes Aug. 31, 1915

THE public buildings of a country form a pretty safe index to its standing, and in them may be read much of its history. When one stands in one of the old medieval squares — like the "Grand Place" of Brussels — and sees about him not the royal palaces of a gilded aristocracy, as at Versailles, nor the towering cathedral, nor vast ecclesiastical edifices of a priest-ridden land, but the Hotel de Ville (the "Town-Hall") and the "Chub houses" of the wealthy merchants, The Weavers' Guild, The Cloth Guild and The Fullers' Guild — what need of written history to tell of an independent and wealthy burgher population in the old Flemish town?

One might also tell something of the climate of a country by its public buildings. The sturdy, granite building, with its steeply-pitched roof, speaks of a rugged climate with storm and snow; whereas the building covered with marble and exterior fresco, with flat roof and wide cornice, speaks of smiling southern skies.

The great buildings of past generations are the heritage of all humanity, and when such wonderful poems in stone as the Town-Hall of Louvain and the Cathedral of Rheims are wantonly damaged, the whole world is stirred to protest. Yet it has been true in the past that the greatest destroyer of works of art has been not time, but man. The peerless Parthenon might quite possibly have been preserved to us as perfect as when the apostle Paul

beheld it but for the fact that it was used as a powder-magazine in time of war; for Lord Elgin would hardly have carried off its chief treasures had the ruin not been begun before his day.

Our own country is still too young to have any such inheritance as have the countries of the Old World; but she has many fine buildings built according to old laws, and she is fast evolving an architecture of her own in which she is writing a page of history new to the world.

Of course, one can take good photographs of buildings without a knowledge of the principles of the different styles of architecture; but such a knowledge cannot fail to help one in the choice of buildings worthy one's efforts and in the point of view which will best bring out the good points of the edifice.

St. Patrick's Cathedral in New York City is a splendid example of Gothic, but is so crowded by other buildings that a picture of the whole is hard to obtain. As with most good buildings, however, many charming views of details may be had which are often more attractive than the whole.

The Classic style, as typified by the government-buildings at Washington and adapted to meet the requirements of many public buildings the country over, is one that furnishes many attractive details by way of open colonnades, where the play of light and shade between the columns makes one of the most interesting studies possible.

This matter of lighting is one of the most vital points in architectural work of any kind and needs much study. A flat light is seldom good, though when fine detail of carv-





GOSSIPING

W. R. BRADFORD

SECOND PRIZE — INTERIORS WITH FIGURES

ing is to be brought out, a dull day will sometimes give a softer plate with more detail in the shadows. For ordinary work, however, the play of light and shade on a bright day adds greatly to the pictorial value of a building.

Some ornamental cornices or other projections are designed by the architect with a view to the effect of light and shade produced by their shadows.

If a time can be found when the sun's rays are nearly parallel with the façade, it will be seen that every little projection or irregularity of the stone casts its shadow, and a varied and pleasing effect full of detail may be obtained. The worst possible light is one from directly behind the camera; then everything is flat and characterless. It helps the perspective if one side be more strongly lighted than the other, and it is always better to show two sides if possible. The viewpoint should not, however, be such that the corner comes directly in front, showing an equal amount of front and side. Of course, it is not always possible to locate the camera at just the point one would choose for an ideal view; but there is always a best place, and it pays to spend a good bit of time to make sure that that place has been found before making the exposure. If one has the opportunity, it is also wise to study the building in different lights and, having determined the most pleasing effect, try to reproduce it in one's print. Not infrequently it will be found that a building takes on dignity and unsuspected beauty as seen by night-illumination. Look it over carefully and make up your mind why this is true. If it is because of the suppression of detail, the same effect may be obtained by daylight, possibly; but if it is the result of cast shadows from some near-by light, then the exposure must be made at night.

When it comes to making pictures inside, a new set of difficulties is to be overcome. It is not always easy to

find a location where the desired view may be obtained, and it is not always possible to use a tripod-equipment. When there is a gallery, the camera may often be placed on the railing and include a very satisfactory view. One may feel that the number of people about will make an adequate exposure impossible; but the fact is that as long as the people keep moving, they need not be considered. When there is much passing, it is well to stop down the lens enough to allow of an exposure of two or three minutes, thus lessening the proportion of time in which the view is obstructed. Should some one stop within the angle of view, the shutter should be closed until he moves on, then it may be reopened and the exposure completed. Needless to say, the camera must be placed and held firmly lest any shifting due to loose rugs, insecure floors and the like give a double exposure.

One comfort in taking interiors of public buildings is that they are nearly always simple and restful — not so overcrowded with needless "implementa" as so many private residences are. Many buildings have an interior court which is a joy to the heart of the camerist in search of the picturesque. A glimpse of growing flowers or a quaint fountain seen through the arches or between the pillars of the arcade is most attractive. A subject of this type, particularly if taken in a bright day, needs long exposure. The brightly-lighted court may well prove deceptive and cause one to give inadequate time for the poorly-lighted pillars. Give ample exposure to bring out the shadow-detail and give roundness to the columns, then in development there will need to be no forcing and consequent clogging of the detail in the lighted court.

Both in exterior and interior work it is well to avoid the use of a wide-angle lens when possible. There are times when nothing else will give one the desired view; but it should be considered as a sort of necessary evil to





A QUIET GAME

MABEL HEIST BICKLE

### THIRD PRIZE — INTERIORS WITH FIGURES

be avoided when any other method can be resorted to. It is bound to exaggerate perspective and will distort near-by objects more or less the best one can do. It is better to be content with a less inclusive view, which gives a true rendering of what is included.

One cannot slight technique in architectural work, for any departure from accurate representation is quickly detected by the merest novice. A building must stand on a firm base and be absolutely rectilinear. It must also give some idea of its material, whether stone or wood. It should not look as though constructed of flannel or eider-down. If it has fine carving, a near view showing it somewhat in detail is better than a distant view; whereas a building fine in line and proportion is very much better shown as a whole.

KATHERINE BINGHAM.

### The Importance of Focal Length

THERE is one fatal error which must be avoided when purchasing a portrait-anastigmat. It must never be forgotten that the perspective, or what is often called the "drawing," of a picture, depends upon the point of view, and is not influenced by the design of the lens. For example, if we place a camera with its front-board at 12 feet from a sitter, and make successive exposures with an anastigmat, a portrait-lens, a spectacle-lens and a pinhole, the lenses, of course, being of the same focal length, the images will be identical for size and perspective, although the general definition and covering-power may be widely different. The superior covering-power of the anastigmat often leads to a short-focus lens being procured from motives of economy, and the purchaser finds when too

late that there is something wrong with his portraits. Therefore the maximum focal length should be nearly twice the longest dimension of the plate, although perfect covering could be secured with a much smaller lens. Another defect resulting from the use of a short-focus lens is a too sharp rendering of the background, giving the hard or "wiry" appearance in the print which many workers have thought to be inherent in the type of lens, and not a matter of focal length.

*The British Journal of Photography.*

### Stained Fingers

If it is very important that the fingers should show no trace of stains, and a developer has to be used which is apt to leave its trace on the skin, the following dodge may be adopted: About a teaspoonful or less of sodium sulphite is crushed and dissolved in a teacupful of cold water. When dissolved, 15 or 20 drops of acid, sulphuric or hydrochloric, are added; or, if neither is available, 20 grains of citric acid. The mixture should have a choking, sulphurous smell. Whenever any of the developer touches the fingers, they should be dipped in this for a moment and rinsed. It is a powerful anti-stain. — *Photography and Focus.*

### Seeing Is Believing

THE editor received the following anonymous letter from one of our subscribers: "Please tell me why it is that a girl closes her eyes when a fellow kisses her?"

To this we will say: "Send us your photograph and perhaps we can tell you." — *Exchange.*

# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department

Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Definition and Exposure

IN a recent editorial we referred to the fact that a short exposure will often give a result that looks much sharper than one produced by a longer exposure. As we then pointed out, this effect can be attributed in some measure to the scale of gradation—an image showing a rather hard and short scale, which looks sharper than a softer image possessing a larger scale. In other words, an image that is flat, owing to long exposure, will not look so decidedly sharp as one that is hard, owing to short exposure. It must, however, be remembered that, in addition to this apparent difference in definition, there is also an actual difference, due partly to the spreading of the image and partly to a modified form of halation that accompanies long exposure. This effect can be observed very readily in the process of copying line-drawings. If a series of exposures is made, varying from slight under-exposure up to overexposure, a distinct falling-off in definition will be seen throughout the series as exposure is increased. The lines will widen until they are several times wider than the thin lines given by short exposure, and for this reason it is always advisable, in such work, to keep the exposures as short as possible. An experiment, such as that we have suggested, will show that a usable negative can be produced on a process-plate from exposures that vary enormously in the matter of time; but tendency of most workers is to apply this latitude in the wrong direction. That is to say, they are inclined to give the longest exposure that will give a decent negative, whereas they should aim at the shortest one; therefore, they get inferior definition. The only satisfactory way to arrive at the best exposure is trial by exposing a plate in strips. Meter-indications are of very little use unless supplemented by trial.

*The British Journal of Photography.*

## Economy as an Offset to Higher Plate-Prices

A LITTLE consideration will show that the factors affecting the plate-maker also affect, to a greater or lesser degree, the professional photographer. The best way is to practise economy all around; in many studios there is a great deal of waste—so great, in fact, that it should be very easy to save far more than the extra cost of the plates.

To begin with, particularly in middle-class studios, too many plates are exposed at each sitting. Insufficient attention is given to the posing, and several plates are taken in the hope that one or more may turn out well. It is a mistake to submit so many proofs. A sitter gets three or four, or even more, proofs, and there is very little difference between them, as may be seen from the fact that an order for a dozen copies is often made up of three from each of four negatives. Bear in mind that there is involved not only the cost of the plates, but the cost of producing the negative, including that of the retouching.

There are signs that good photographers are beginning

to drop the "sketch" style; but it should now be remembered that this style has the advantage that the cost of the plate is low in proportion to the size of the print given. In studios where there is not a very large output it should be possible to arrange for small-sized enlargements to be made instead of contact-prints. A fixed-focus enlarger could be fitted up whereby 12 x 10 sketches could easily be made from the two halves of a half-plate. Many dealers have some such arrangement for making enlargements from amateurs' small films. The prints need not necessarily be on bromide—there are the more attractive papers of the type of Cyko, Kodura or the Wellington B. B.

Then many photographers use more elaborate and expensive mounts than are absolutely necessary. With the dry-mounting machines now in general use and the art-papers and adhesive tints obtainable from the same sources as the machines, it is easy to make mounts which are as pleasing to the public as the more costly productions of the mount-makers.

There are many little ways in which savings can be made by a watchful man. Packages of plates and papers are opened and not all used; the remainder is put aside and never used. More developer and other solutions are made up than can be used before they are spoiled. Mount-packages are opened, and, if not all used, the unused ones are not tied up in such a way as to keep clean. Gas and electric lights are left burning to waste in work-rooms.—"Balance-Sheet" in *The British Journal of Photography*.

## Mixing Solutions

It is important to remember that in some cases the order in which the various ingredients in a photographic formula are mixed makes all the difference in the result. For example, if in making up a pyro-solution the pyro is added to the water first, and the sulphite or metabisulphite is added afterwards, the result will be a badly discolored solution. Until the sulphite is put in, there is nothing to hinder the oxidation of the pyro, which is therefore promptly acted upon by the oxygen dissolved in the water. On the other hand, metol, which is readily soluble in plain water, is not at all easily dissolved in a solution of sulphite. It is, therefore, necessary to dissolve the metol first, and only to add the sulphite after solution is quite complete. If it is not, it will be found that the sulphite has precipitated most of the metol, which it is difficult to redissolve properly. When chrome alum is added to a solution of gelatine, or when spirit is added to one of caramel in water, if either addition is made all at once, the gelatine or the caramel will be precipitated and cannot be redissolved. The addition should be made a little at a time, stirring well between each, so that neither alum nor spirit is at any time in great excess anywhere. In the case of gold toning-solutions, also, the gold should only be added a little at a time, and should always be the last ingredient. In such a case it is a help to





MEDITATION

DR. RUPERT S. LOVEJOY

dilute the gold-solution freely with some of the water, so that it is nowhere very concentrated. A good general rule in all such cases is to add each constituent in the order in which it is mentioned in the formula, as whenever the order is of importance it is always that in which the items are named that is to be followed.

*Photography and Focus.*

### Expression vs. Technique

It has often been remarked that the principal point of a portrait is the expression. If that is lacking, no beauties of pose or light-and-shade will please the customer; while often quite a poor result technically, or an insignificant amateur snapshot, will be treasured on account of the "speaking-likeness" of the subject. So that the operator should always reserve his supreme effort to getting a natural and interested expression from his sitters at the time of exposure. The method of obtaining this must necessarily vary very much; but if he fails in this one point, all the rest of his trouble and care in posing and lighting may go for nothing.

It should not be forgotten, however, that the expression shown in the finished picture does not depend entirely on the operator. Portraits are rendered lifeless by an undue amount of retouching; but what I particularly want to point out is the effect that exposure, development and printing may have on the expression and likeness. In the case, for instance, of a somewhat *spirituelle* child with an expression inclined, perhaps, a little to the pathetic, an underexposed negative will give the effect of her being positively ill, particularly if printed rather on the dark side. On the other hand, I have seen many a portrait bearing a happy smile transformed into a sort of sickly sneer by overdevelopment, or what amounts to the same thing — printing on too contrasty a paper. If any one doubts the truth of this, let him take a negative of a smiling face, preferably one in which the lips are closed, and with fairly strong lighting. Let it be developed so as to give a good-quality print full of gradation. Then let it be intensified, and another print made to compare with the first one. I venture to think that the difference will astonish a good many.

D. B. in *The British Journal of Photography*.



# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

## Wet-Weather Subjects

MANY are the subjects that lend themselves to wet-weather treatment. Some, indeed, that lack interest under broad sunlight take on poetry and beauty when seen under lowering skies. In parts of the country when, under ordinary conditions, the air is so clear that it is difficult to get pictures showing any effect of atmosphere, the rainy day is a bonanza to the pictorialist. The distant mountain that looked before like a hill in the middle-distance now shows in its proper relations and attains more nearly its real immensity by being sent back to its proper distance; and what looked an uninteresting, flat stretch of country attains plane-values and misty distances by the alchemy of the rain.

Sometimes, also, an objectionable background may be obliterated by the same means and an attractive foreground thrown into splendid relief by the same soft gray "back-drop."

To be sure, there are disadvantages in photographing under these conditions, for the lengthened exposure makes the hand-camera impracticable, and to keep oneself and a stand-camera dry when rain is actually falling, is rather trying to the disposition. It is often possible, however, to take the picture from some sheltered spot where one is protected from the dampness, and often just as good or better work may be done just after the rain has stopped. After a heavy shower there is often a wonderful time of unusual light-effects as the sun struggles through low-lying clouds with long rays like great searchlights, and sometimes a luminous mist adds its charm and mystery.

The sparkle of the wet foliage is sometimes hard to portray adequately. If not quite in focus, particularly, it is apt to show confusing round white spots that are most annoying. So much light is reflected from all wet surfaces that roads, roofs, foliage, etc., photograph much lighter in tone than under ordinary circumstances, and when heavy, dark clouds form the sky the result is sometimes rather theatrical and unreal. It is better to wait until the clouds lift and a more normal balance is restored.

But the city-dweller has endless interesting subjects at his command when the rainy day comes. The wet pavement gives very interesting wavering reflections and the pedestrians hurrying along with dripping umbrellas give plenty of human interest. The omnipresent "taxi" has nearly superseded the cab-horse now, and is certainly less subject to criticism from the Society for the Prevention of Cruelty to Animals, yet there was a picturesque pathos about the wet and cowering animal that was better picture-material than the glistening automobile.

All parts of the city yield all sorts of subjects from grave to gay. Take this home on "the Avenue" when a reception is in progress: the awning across the sidewalk; arriving and departing motor-cars; gaily-dressed women stepping from them, gazed at by hungry-eyed children, and attended by footmen and lackeys. There is surely material for more than one exposure.

Perhaps the steps of the Cathedral will supply other subjects: people entering and leaving over the wet steps, possibly some street-vender who has taken shelter under the arches, or some prelate of rank with his attendants, ecclesiastical skirts held high.

Then take the "East-Side" tenement-district after a rain. The water in the gutters is a new plaything to the swarms of children whose only playground is the street, and such interesting types as may be found wading or sailing ships on the miniature lakes and rivers. A little extra patience is needed for this sort of work, for the best grouping must be waited for and it is sometimes slow in coming. As the camera must necessarily be more in evidence than on a sunny day, it will probably attract the attention of the kiddies, and the newness must wear off a bit before they will return to their play and ignore it. Nothing is more fatal to success in this sort of picture than to have the subjects show an interest in the camera. They must be intent on their play or interested in one another. The older people in such districts have usually a large element of the picturesque — the women with shawls over their heads and quaint baskets of divers sorts.

The sidewalk-markets, still to be found in some sections, have an added picturesqueness under wet-weather conditions, and the street-venders of all kinds with their customers are good material. Then along the water-front there are endless opportunities for the pictorialist. The boats near shore loom larger through the heavy atmosphere, and "Jack ashore," in his oilskin and sou'wester, is a picturesque sight.

The courageous individual who ventures forth under such conditions must provide protection for his instrument as well as for himself. It is a good plan to make a waterproof bag closed by elastic at each end. The front end can then be adjusted about the lens and the back pulled out to act as a focusing-cloth. A hole in the bottom allows adjustment of the tripod-screw. If one intends to "camp out" at some promising corner and wait for one's subject, an umbrella-stick such as artists use will be an advantage; it is simply a long stick, metal shod at one point for sticking in the ground and having a clamp at the other end to hold the umbrella-handle. This leaves both hands free to operate the camera.

A large stop should be used and good full exposure given, as softness of outline and "one common grayness silencing all" are characteristic of rainy-day impressions and should be the result sought for in one's reproduction of them. Development should also be for softness of detail rather than for contrast. If a short exposure is given and development forced, the resulting picture will have the contrast and general appearance of an exposure made on a bright day, but will show no cast shadows and have no particular pictorial value. If, however, one is successful in capturing the soft, gray atmospheric quality which makes the rainy day so attractive, that quality in itself will make the picture, though the subject-matter might, under other conditions, be unattractive.



WASHINGTON MONUMENT FROM D.A.R. HALL C. H. KATTELMANN

A rapid brand of plate should be used, particularly if figures are the subject, and with a large stop to give softness the exposure may be fairly short, even though the day seem dark. Particularly is this true of subjects along the shore where the light is always stronger than inland.

The printing-medium has much to do with the success of the picture. Gray platinum is an ideal paper for such subjects, particularly the rough surfaces, as it gives almost the effect of an etching, softening outlines and subduing unnecessary details.

### Enlarging and Granularity

ANYTHING which tends to increase the coarseness or granularity of the image on a negative is to be avoided, particularly when the picture is to undergo a high degree of enlargement, such as is so often the case with the work done with very small cameras now so popular. Modern extra-rapid plates are no longer open to the reproach of granularity; the best of them are as free from any troublesome coarseness as a slow plate; but the procedure followed by the photographer may itself be the

cause of a grain making its appearance. With some, if not with all, fast plates, granularity is more often to be detected in underexposed than in fully exposed negatives. Intensification, as might be expected, certainly tends to produce the defect to which we are referring; and for this, as well as for other reasons into which we need not go at the moment, is a thing to be avoided when the negative is enlarged. Even when an image with a fine grain has been developed and fixed, there is still the possibility that it may be given a coarse grain in the drying-process. This is one of the results which sometimes follow a too hurried drying by means of heat, and can be prevented entirely by drying by means of a current of cold or at least only very slightly warmed air. Of course, when the enlargement is to have its definition softened by the use of bolting-silk, matt celluloid, or similar devices, there is no longer the same importance attaching to the absence of granularity; but even in such cases it is well to keep clear of working-conditions which favor it, particularly as they are likely to possess other objections besides the one to which we refer.

*Photography and Focus.*



## Shutter, Diaphragm and Focus

WITH the approach of the snapshot-season, the amateur who is not satisfied with the shotgun-system of blazing away at everything in hopes of "getting something," but who wants to make each individual effort count, asks himself, among other questions: What diaphragm and what speed shall I use for a certain picture?

The puzzled beginner sees that his shutter offers him a variety of speeds and his diaphragms different openings. He learns, for instance, that one second at F/8 is equal to two seconds at F/11, four seconds at F/16, and  $\frac{1}{2}$  second at F/5.6. He is afflicted with an *embarras de richesses* and knows not which way to turn. What is the difference in these combinations, or is there no difference?

There is a great difference, and the difference often makes or mars a picture.

It all depends on what sort of a picture you are trying to take and how appropriate your method is to the subject. Is it a portrait, is it a detail in architecture, or is it a landscape that you want to render in monochrome? There is grandma, dear old soul, sitting on the front porch, knitting stockings. You want her face, the old rocking chair and the foot-stool; but you certainly do not want every detail of the wall behind her, nor of the vines and the neighbor's house in the background. Or here is little Lizzie's attempt at drawing a street-scene, for instance. You want a clear, distinct copy of each line and shade of pencil-mark. Then, again, you want that lovely view in the woods with its flecked shadows and its veiled obscurities; you want the general effect and not the minutiae of each and every leaf standing out in insistent sharpness. To accomplish these various effects with one and the same lens is not very difficult, if a person will take the trouble to learn and apply a few simple principles underlying the construction of the lens.

If the amateur will consult some such authority as, for instance, *Photo Miniature*, No. 76, or the *British Almanac* he will find tables bearing on the subject in hand. I take the liberty to copy from the former, page 136, part of a table showing approximately the depth of focus in feet for a 5-inch lens.

F/8			F/11		
6	8	11	4	6	8
7	10	16	6	8	13
9	15	35	7	10	21
11	20	87	8	15	71
13	26	Inf.	10	19	Inf.

F/16			F/22		
4	6	11	3	5	11
5	8	21	4	7	32
6	10	43	5	9	Inf.
7	13	Inf.			

The significance of these tables is as follows: A 5-inch lens set for 8 feet at F/8 will give a depth of field from 6 to 11 feet. Set for 15 feet, objects between 9 and 35 feet will be in reasonably sharp focus, being most distinct at 15 feet, of course. Using F/16, for example, an object 8 feet away would show a space 3 feet in front and 13 feet behind, in clear focus. Using F/22 and setting the scale at 9 feet, there would be a space of 4 feet in focus and everything beyond (or "Infinity") in focus.

Using these tables intelligently, we should have no trouble in taking a picture of grandmother with the proper accessories and without an insistent and distracting background. Have her sit about 10 feet from the wall, use F/8, and stand about 10 feet off. You thus enable the beholder to concentrate the mind on the main object which is grandma and not the wall-pattern behind her.

There is, for example, little Willie with all the brave toggeroy of a Boy Scout. He has an ax on his shoulder and has just come out of the woods. An excellent picture, provided the background of woods is not allowed to become so insistent as to distract the attention from Willie. Remedy: set the scale so that Willie shall stand out distinctly and the woods will be artistically suggested.

"But," argues the inquirer, "I notice from the above tables that I may set my object at 10 feet from the camera and still use three different diaphragms, having a depth of field 16, 21 and 43 feet, respectively. What is the difference in effect?"

There is this difference, which might be quite important with an animate object. The necessary exposure for F/16 is four times that of F/8; that of F/11 is twice as much as F/8. The person, if you use the small stop, might move and blur the picture. The larger the stop, the more "atmosphere" in the picture. There are cases where atmosphere is not needed or suitable, as in copying or in rendering minute details. A photograph to be used for legal evidence or for advertising-purposes should have as many details and be as bold and striking as possible. In such cases the rule is to use as small a stop as convenient and give as much time as needed. Develop for hardness. What is wanted is a "record," pure and simple.

But all photographs are not meant for records merely; the old-fashioned "F/64" style has passed into photographic oblivion.

Nowadays the effort is made to render in monochrome-photography objects as they really appear to the discriminating and trained eye. A landscape without atmosphere is an abomination, unless the title warns the beholder that the scene is from Arizona or some other desert country. Nor, on the other hand, does the human eye generally take in small details in a large scene. Hence the rule in such cases to use the largest stop suitable or available, thus securing more or less the atmospheric effect of plane of vision and suppression of minute and unessential details.

The factor of shutter-speed is so closely bound up with that of diaphragm, depth of focus and effect aimed at, that little more need be said. In moving-objects, of course, the speed is important. This topic is well discussed in succinct form in the *Burrongs-Wellcome Diary*, page 240. In conclusion, it may be remarked that, as a rule, shutter-speeds, except in the very best instruments, are to be regarded with suspicion, particularly with the very low and very high markings. Where possible, it is safer to depend on the diaphragm-markings.

E. L. C. MORSE.

## Blue Stains in Sulphide Toning

WHEN there is a liability of blue stains being formed, owing to the presence of iron in the water used, I recommend the following bleaching solution:

Potassium bromide .....	6 ounces
Potassium bichromate .....	6 ounces
Water .....	1 gallon
Hydrochloric acid, commercial .....	8 ounces

Prints require rather more washing between bleaching and sulphiding than when ferricyanide is used.

With an iron developer the above bleacher can be used with perfect results, but the same tones are obtained.

Photographers occasionally find a difficulty in bleaching prints with the ferricyanide-bromide bleaching-solution, some parts of the prints refusing to bleach properly. This defect can be cured, or prevented from making its appearance, by adding 15 drops of ammonia (.880) to each pint of bleaching-solution. — C. F. S. Rothwell, F.C.S., in *The British Journal of Photography*.

# THE ROUND ROBIN GUILD MONTHLY COMPETITION

## For Beginners Only

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

### Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

### Prizes

*First Prize:* Value, \$5.00; *Second Prize:* Value, \$2.50; *Third Prize:* Value, \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "General"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

### Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. **Criticism on request.**

4. Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. **Be sure to state on the back of every print exactly for what contest it is intended.**

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8x10 or mounts larger than 12x15, unless they are packed with double thicknesses of **stiff corrugated board, not the flexible kind, or with thin wood-vener.** Large packages may be sent by express, very cheaply and with indemnity against loss.

### Awards—Beginners' Contest

Closed April 30, 1915

*First Prize:* Carl H. Kattelmann.

*Second Prize:* Warren R. Laity.

*Third Prize:* J. K. Hodges.

*Honorable Mention:* William J. Harris, Jr., Lubin Palmer, H. B. Rudolph, Martinique M. Sancier, Myra D. Scales, S. A. Weakley.

Special commendation is due the following workers for meritorious prints: G. F. Alrich, Otto G. Baumgartener, E. Foy, Jos. Heineman, Magnus Jonsson, Mrs. Abbie Morton, A. C. Roe, Harry Sloan, A. C. Smith, Kenneth D. Smith, A. J. Weis, Anthony J. Wieland, M. W. Wiltse.

### Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers. In this class the standard is much higher and the camerist will find himself competing with some of the best pictorialists.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed, to the Guild Editor for criticism, will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links. To compete with others puts anyone on his mettle to achieve the best that is in him, and if, in competing, he will study carefully the characteristics of prize-winning prints every month and use the Guild correspondence privilege freely, he cannot help but progress.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U.S.A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

W. H. — Of course one cannot expect to obtain quite so good lens-work with a **supplementary lens** as with a regular wide-angle objective, although results will meet all except the most critical requirements. The quality of the image depends more upon the objective than upon the supplementary lens, and with your Velostigmat you need not have any fear. If you do not feel that you can afford a regular wide-angle objective, and can confine yourself to subjects which permit the use of the small diaphragm necessary, you surely will not regret the small cost of a wide-angle supplementary lens.

D. S. T. — **An unsymmetrical anastigmat may be used for enlarging-purposes**, but it must be reversed so that the front lens which, when used on an ordinary camera is towards the distant object, will be towards the bromide paper, whereas the back lens will be towards the negative. On this basis the lens will be employed under conditions similar to normal use in a camera, *i.e.*, object farthest from the front lens and plate nearest the back lens. If an unsymmetrical lens is used for enlarging-purposes with the front lens towards the negative in the usual manner, the fine spherical correction will be lost, and even a fair result can be obtained only by the aid of a small stop. The more rapid the greater will be the defect.

P. T. — Regarding the **soft-focus lens**, its aim is to control, but not to eliminate, the chromatic and spherical aberration that exists in an uncorrected lens. The resulting lens yields to a marked degree atmosphere, stereoscopic effect, separation of planes and excellent quality throughout. As an enthusiast describes it: "In portraiture the amount of diffusion is easily controlled and all parts are apparently well focused. For instance, if the camera is focused sharply on the eye, as is the usual practice, the ear or hair, or any other portion of the person appearing in the picture, also appears in focus and perfectly natural; whereas with a highly corrected lens, if focused on the eye, all the detail at that point is sharply diffused, and other parts of the features, such as the ear, for instance, which is beyond the plane of the sharp focus frequently appears only as a ball of diffusion having little resemblance to an ear."

With an anastigmat lens it is by careful selective focusing, as in the subject you mention, that stereoscopic effect is obtained. It is desirable, when not overdone, but this is a danger, as inferred by the soft-focus lens enthusiast. Portrait-lenses tend towards this effect, being less fully corrected than anastigmats for general work, and, of course, the longer the focal length the greater the tendency towards marked separation of planes.

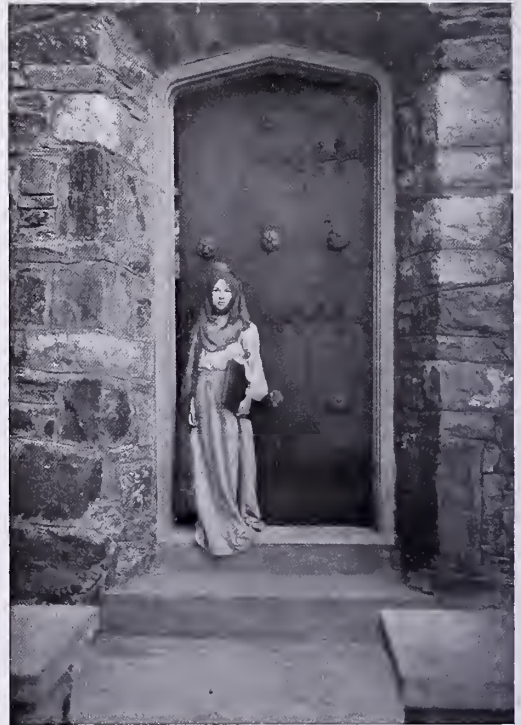
A. G. C. — **The difference in speed** between your F/6.8 Goerz Dagor and F/6.3 Kodak Anastigmat is so small as hardly to be worth computing, the latter, of course, being slightly faster. If you will look under the "table for other stops" in the PHOTO-ERA Exposure-Guide, you will see that an F/6.3 lens requires only 5/8 the exposure of an F/8 lens, which is the speed of the average rapid rectilinear on most small cameras.

P. C. B. — **The best hypo-eliminator** is potassium permanganate. Put enough into any quantity of water to turn it pink; the presence of hypo will clear the

solution. Continue to treat with permanganate solution until after continued immersion the color is not removed.

Be sure, however, that you are using fresh plates and that the developer is not too warm. If you use the Cramer tank-formula at 50 degrees, all well and good; but if at a higher temperature, it may be well to use only one ounce of sodium carbonate, as in the ordinary developer, rather than two. A few drops of potassium bromide solution may also prove beneficial. The chances are, however, that, as you say, the fogging-trouble is due to hypo, for it is a grave danger when developing and fixing are carried on in the same tank.

P. S. B. — **The fourteen-inch lens for landscape-work** is preferable to shorter focus to be used on your 8 x 10 camera. The narrower angle is desirable, as is also less depth of focus. The shutter does not very much



A MAID OF LONG AGO

WARREN R. LAITY

SECOND PRIZE — BEGINNERS' CONTEST

matter so long as it has a good variety of slow speeds of definite duration, since high-speed work will not be attempted with this equipment. One of the best and cheapest shutters is the Thornton-Pickard Roller-Blind, for which Andrew J. Lloyd & Co., Boston, are agents. It gives definite exposures from 3 seconds to 1/90 second, and you will find those long times, 3, 2, 1, 1/2 second, very useful. Aside from this, any automatic inter-lens shutter with 1 second, 1/2, 1/5, 1/10, etc., will do.

No firm now handles the Ozobrome materials in America, for we regret to say that it seems to be dying out in spite of its excellences which the Photo-Pictorialists of Buffalo popularized in this country several years ago. You will probably have to import the materials yourself from Thomas Illingworth & Co., Ltd., Willesden Jet., London, N.W., England.

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

J. D. S. — Both of your landscapes are considerably underexposed and forced in development, the white sky above the winding roadway being particularly unfortunate. Orthochromatic plates or films and a color-screen will give a distinct gray tone to the sky in such instances, which is always an improvement.

G. S. F. — "Solitaire" has been printed on too rough a paper for the size of the negative, which apparently was forced in development, the result being almost total absence of detail and texture in the highlights.

F. D. B. — Your subject entitled "The Coquette" is somewhat unfortunate in pose. The farther shoulder seems to be too far away from the camera and the head tilted rather too far to the side, considering the turn of the head, which might better have been a trifle nearer a profile and would have heightened the effect of coquettishness and given better lines in the hair.

A. H. S. — Both of your lily-pond pictures are mealy gray and seem to lack a center of interest. Also there seems to be no point of focus with gradation of tone or definition radiating therefrom. Perhaps these have been enlarged to too great a degree.

F. E. S. — "A Game of Billiards" is preferable to "An Exciting Game at the Club"; the composition and the sentiment are both better and it has greater spontaneity. Both pictures are somewhat marred by the unimportant table-corner projecting into the foreground.

As to the technical work, both subjects would have been improved by a greater and better diffused flash. The prints you have are too intense in the whites and the cast shadows rather too dark and lacking in detail.

E. A. R. — "Raking the Fire" is an excellent piece of flashlight-work and well composed, but the subject is not one of beauty nor one to excite general interest.

F. S. — More space at the left of your "Portrait of F. McG." would have improved it wonderfully. It is unfortunate to have amputated the fingers. Still further improvement could have been made by local reduction or rubbing down of the files over the desk; they are a trifle too high in tone, particularly when merging into the face. Also the light that shines through the back of the chair might also be reduced.

G. M. — The beach in your marine would better have been omitted; there is not enough of it to play a welcome part in the composition, yet it is so dark that it brings undue attention to itself and its ugly, sharp, diagonal line.

W. A. R. — Your winter-photograph accompanying your poem seems to be rather flat and lifeless for such a subject in which we usually like to see vigor and sunlight, unless accompanied by some contrary atmospheric condition. It is difficult to retain the texture and feeling of snow without sunlight. Apparently this negative was made at an unfortunate time.

A. J. V. — Your two landscapes are of good composition and would be greatly improved if printed several shades darker, at the same time rubbing down on the negative what appears to be fog in "The Bridle-Path."

J. A. S. — The contact print of your subject, "A Gay Party," shows that the flash was not sufficient and that development was forced. Generally speaking, the group is good, but it lacks naturalness; three of the persons included are decidedly conscious of the camera. Apparently the flash was made back of the camera, which was a mistake. Had it been made to the right at sufficient distance to be out of the picture, the light would have appeared to have come from the fire itself.

The effect of "Columns" is marred by halation from the lamp-standards. This must be rubbed down on the negative before a pleasing print can be expected.

J. P. J. — Your flashlight-subjects are lacking in the definition which is usually required in indoor-work; this is apparently due to the use of a large diaphragm, F/6. A better scheme of work would be to use a smaller stop in the lens and a larger flash, well diffused through cheese-cloth or some other similar fabric. This would

give greater depth of definition throughout the far and near portions of the room and a much softer and more natural lighting. We are indeed happy to say that of your prints "The New Photo-Era" surpasses them all.

W. W. K. — "Camping at Noon" is an excellent composition and the print is pleasing in tone, although it appears to suffer somewhat from the bleaching-effect characteristic of most redeveloped prints, the result being the very white and textureless shirt of the boy at the left and the very dark, detailless face of the principal figure. Probably a black print would improve matters, although undoubtedly the redeveloped print gives a tone to the sky, as would a black print on buff paper.



SUMMER

J. K. HODGES

THIRD PRIZE — BEGINNERS' CONTEST



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

*These figures must be increased up to five times if the light is inclined to be yellow or red. †Latitude 60° N. multiply by 3; 55° × 2; 52° × 2; 30° × $\frac{3}{4}$ . ‡Latitude 60° N. multiply by 2; 55° × 2; 52° × $\frac{1}{2}$ ; 30° × $\frac{3}{4}$ . §Latitude 60° N. multiply by $\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .   Latitude 60° N. multiply by $\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .	MONTH AND WEATHER																			
	JAN., NOV., DEC. †					FEB., OCT. ‡					MAR., APR., AUG., SEPT. §					MAY, JUNE, JULY				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11 A.M. to 1 P.M.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
10-11 A.M. and 1-2 P.M.	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
9-10 A.M. and 2-3 P.M.	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$1^*$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$
8-9 A.M. and 3-4 P.M.						$\frac{1}{5}$	$\frac{1}{2}$	$1^*$	$1\frac{1}{2}$	$3^*$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
7-8 A.M. and 4-5 P.M.											$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
6-7 A.M. and 5-7 P.M.											$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1^*$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
5-6 A.M. and 6-7 P.M.																$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	$1\frac{1}{2}$

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks,** ravines, glades and under the trees. **Wood-**  
**48 interiors** not open to the sky. **Average indoor-portraits** in a well-lighted room, light surroundings.

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number in the third column

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.	U. S. 1	F/4	× 1/4
	U. S. 2	F/5.6	× 1/2
	U. S. 2.4	F/6.3	× 5/8
	U. S. 3	F/7	× 3/4
	U. S. 8	F/11	× 2
	U. S. 16	F/16	× 4
	U. S. 32	F/22	× 8
	U. S. 64	F/32	× 16

## Example

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 P.M., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply  $1/16 \times 4 = 1/4$ . Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class.  $1/16 \times 1/2 = 1/32$ . Hence, the exposure will be 1/32 second.

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.

Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 128, Wy. 250, Wa.

Anso Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.

Anso Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid  
Seed Color-Value

Class 1, P. E. 111, Wy. 180, Wa.

American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter

Imperial Ortho. Special Sensitive  
Kodak N. C. Film  
Kodoid

Lumière Film and Blue Label  
Marion P. S.

Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.

Cramer Banner X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.

Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 84, Wy. 160, Wa.

Cramer Anchor

Lumière Ortho. A

Lumière Ortho. B

Class 2, P. E. 78, Wy. 120, Wa.

Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.

Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Hammer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.

Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.

Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Half-tone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.

Lumière Autochrome



# OUR ILLUSTRATIONS

WILFRED A. FRENCH

THE picture that first greets the eye this month emanates from the studio of a young professional artist, in North Carolina, who succeeds in imparting to his portraits a directness — an intimacy — of expression that is undeniably distinctive. Utilizing, moreover, a suitable portrait-objective of adequate focal length and aperture, he has given utterance to the long-established theory, held among professional portraitists, that the face should be delineated sharply at the expense of all else — somewhat in accordance with the effect obtained with the unaided human eye. The reader may find it interesting to consider this theory, from various angles, and to decide finally what position to take in the premises. Here the face catches and holds the interest of the beholder, although his gaze may stray momentarily to the immediate accessories of hat and curls which form an attractive frame for the comely, finely chiseled face. Data: large north window; August, 10 A.M.; 14½-inch portrait-lens; full aperture of F/4.5; 8 x 10 print on Eastman E. S. Platinum.

The imposing frontispiece exemplifies the genius of John Garo, whom several admirers have named the Horsley Hinton of America. With due respect for the honor intended, I venture to say that, in power or expression and individuality of style, the artistic performances of the Boston pictorialist exceed those of the late English master. In "Lombardy Poplars," Mr. Garo has undoubtedly surpassed his best efforts in pictorial landscape-photography. Data: 14 x 17 gum-print, enlarged from small original negative. Scene near Lake Winnepesaukee.

The illustrations which accompany the highly instructive paper by R. W. Tebbs need no special comment here. They exemplify the methods of a prominent New York professional in managing the various subjects that he is called upon to photograph — not for the owner of the premises, but for the architect, who is the one to be satisfied. These superb photographs are illuminating in that they illustrate the salient points of the architect's wishes. They are to be studied by the interested worker — professional or amateur — from this viewpoint. Mr. Tebbs is an extremely busy man, not eager to rush into print to display his knowledge; indeed, it required much effort to persuade him to supply us with adequate material for a paper that would be eminently helpful to the readers of PHOTO-ERA. I am sure that they all will be grateful for the valuable object-lessons that Mr. Tebbs has here presented.

Madame D'Ora, of Vienna, occupies a high position in the professional field in Europe. She ranks a close second to Frau Minya Dührkoop, of Berlin. Her style is conspicuously refined — indeed, she may be regarded as the Van Dyck in photographic portraiture. She is an artist to her fingertips, and a conscientious technician. In arranging the pose, she knows intuitively how to adapt it to the character and personality of the sitter, be it a society woman or an actress. The portrait on page 15 is an admirable example of Madame D'Ora's delightful manner. The artist was the subject of an attractive article in December PHOTO-ERA, 1912, by A. H. Blake.

The typical scene in the Philippines, page 16, is not a pretentious photographic effort. The picture is excellent in its representation of a semi-tropical view. It seems to suggest the oppressive heat and lassitude that are characteristic of the locality. No data. There is comparatively little artistic activity in that part of America's

possessions. What the future has in store for the Filipino people, is problematical. It may be that whatever potent influence in the arts is to be exerted, may come from a near-by source, and we know that Japanese art is regarded by many high authorities as equal to the best in America and Europe.

In picturing C. Graham-White high up among the clouds, page 18, the camerist has produced a vivid impression of boundless liberty and vastness of space, which may also pass for a tribute to the daring birdman. Thanks to his coolness and circumspection, Graham-White has not shared the fate of Johnstone, Hamilton, Hoxsey, Hamel, Chavez and Beachey, who lost their lives in the cause of aviation, nor even the loss of personal liberty as suffered by his French rival, Garros. May he continue his invaluable services as commander-in-chief of the British flying squadron. And the picture? Why, yes, it is technically superb, extremely effective and a credit to Mr. Flood's unerring skill. Data: 5.30 P.M.; Eastman No. 3A Kodak; 6-inch Ross Homocentric lens; stop, F/6.8; ½250 second; Eastman N. C. Film; pyro; 8½ x 12 Eastman Bromide enlargement.

With a well-written article, accompanied by a number of very superior illustrations, pages 20-26, Bertrand H. Wentworth makes his first appearance as a contributor to PHOTO-ERA. His pictures, marines and landscapes, seem to accord admirably with his theory of artistic expression. Exhibited recently at the rooms of the Society of Arts and Crafts, Boston, these and other interesting prints elicited the praise of W. H. Downes, art-critic of the *Boston Transcript*:

"Bertrand H. Wentworth's group of large prints is remarkable for the grand style with which he has invested his winter-landscapes and his marine-pieces. Many as are the snow-scenes that amateur photographers have taken, and fascinating as some of these are in their delicacy and brilliancy, it has remained for Mr. Wentworth to strike a deeper note of beauty and distinction in his pictures of the great drifts, which have a really noble character of design, gained chiefly by the subtle combinations of lines, such as are afforded by the infinitely varied and graceful contours carved by the wind." Data: "Black Head," Monhegan, page 20; August, 4.30 P.M.; full sun; 6½ x 8½ Premo; 8½-inch Carl Zeiss Protar; stop, F/7.2; Standard Orthonon; pyro; 8-times color-screen; ¼ second; negative developed for Platinotype.

"Mt. Katahdin," page 21; August, 10 A.M.; stop, F/6.8; 4-times color-screen; nearly full sunlight; ½25 second; rest as preceding.

"Snow," page 24; Jan. 23, 1915; 2 P.M.; stop, F/10.5; 5-times color-screen; through thin clouds; ⅓ second; rest as preceding.

"Monhegan Spruces," page 20; Sept. 24, 1914; 4.20 P.M.; dull, heavy fog; 3¼ x 4¼ Graflex; 9-inch Smith Semi-Achromatic; stop, F/6; 5-times color-screen; ⅓ second; rest as preceding.

"Breaking Wave," page 23; Aug. 30, 1914; 12.15 P.M.; through thin clouds; 14¾-inch Carl Zeiss Protar; stop, F/11; 4-times color-screen; ⅓60 second; rest as preceding.

"At Anchor," page 26; July 16, 1914; 4.45 P.M.; dull, fog; no color-screen; 9-inch Smith Semi-Achromatic; stop, F/8; ½25 second; rest as preceding.

Unconventional, simple and attractive in arrangement and treatment summarizes the floral work of W. S.

Davis, as explained in his treatise on "Floral Compositions," pages 29-33. All in all, this is one of Mr. Davis' most valuable contributions to PHOTO-ERA. It is sincerely to be hoped that workers who are prone to indulge in stiff and hackneyed arrangements of flower-subjects, flat lighting and ultra-sharp definition will heed the advice so lucidly and convincingly set forth, and by so capable and genial an artist as Mr. Davis. Data: "The Sunlit Daffodil," page 30; subject near west window, late on May afternoon; sunlight diffused through white muslin screen; stop, F/8; 2 seconds; Ingento "A" filter; Cramer "Inst. Iso.," backed.

"Sunshine and Lilies," page 31; 9.50 A.M. in the open, direct sunlight on flowers; stop, F/11; 1/5 second, Cramer Isonon.

"A Study of Roses," page 32; studio on July morning, subject about 18 inches from east window covered with thin cloth; stop, F/16; 40 seconds; Cramer Inst. Iso.

"In Springtime," page 33; May; soft sunshine; stop, F/11; 1/2 second; Cramer Portrait Isonon.

The portrait by Miss Fedora E. D. Brown, page 34, is one of the artist's early efforts. It is interesting in several respects — partly because, like a good book, song or picture that has had its day, this style of portraiture sometimes gladdens the senses if revived judiciously; and partly because it will bear critical comparison with some of the present-day styles of representation which, it must be admitted, do not always possess ingratiating qualities. Though Miss Brown's portrait dates back only ten years, the costume of the sitter is of a much earlier period, and a combination of the two might commend itself to many a serious worker. The process of halftone reproduction is by means of a grain-plate. Data: Original made with an old box-type Kodak; enlarged on 6 1/2 x 8 1/2 Hammer Blue Label plate; direct platinum print.

## The Photo-Era Competition

THE competition, "Interiors with Figures," produced a larger number of successful entries than a similar contest several years ago. This time the contributors grasped the meaning of the theme and expressed it more genially, i.e., they gave the scenes more character and interest. Thus, in many instances, delightful genres and episodes resulted, several of which received official recognition. These prize-pictures, undoubtedly, will serve as models for similar efforts during the coming indoor season.

Mr. Cutting, as winner of two first prizes this year, seems to have derived considerable benefit from his knowledge of customs and costumes of by-gone days. This he demonstrated very delightfully in his "Village Choir" — published in May PHOTO-ERA — and, again, in "In War-Time," page 37. The costumes worn by the two models belong to the period of the Civil War. The story is one of close human interest, and has been told by the artist with fidelity and charm. Viewed critically, the perspective of the composition would be better had a lens of longer focus been used; but it meant the employment of a wide-angle instrument, in the confined situation, or no picture. Despite this technical short-coming, the sentiment of the motive and other important qualities carried the day. Data: April, 11 A.M.; bright light from three windows; 6 1/2 x 8 1/2 Century View-Camera; 7-inch Wide-Angle Euryscope; full aperture; 2 seconds; Stanley; Eastman's hydro formula; 6 1/2 x 8 1/2 American Platinum print.

It is impossible not to take part — in spirit, of course — in the mirth of the breakfast-party, page 38. The presence of a fourth person, the photographer, is supposed, but is not felt. The whole scene expresses the utmost naturalness and ease. As a composition and as a technical performance, the group leaves nothing to be desired.

You see, a professional artist, one who finds the vocation of cartoonist on a large American newspaper more profitable than painting canvases, is the author.

Mr. Bradford was so pleased with his success that he penned the following reply: "Wilfred French, Dear Sir: Answering your letter of the 6th inst., notifying me of my winning second prize in 'Interiors with Figures' competition, recently, I couldn't have been more pleased had a rich uncle died and left me money! PHOTO-ERA is the cream of the photo-art class. I am enclosing a list of the 'largess,' or baksheesh, so to speak, which you offer as a prize."

Data: March, 1915; 10 A.M.; bright light; 2 1/4 x 2 1/4 W. P. Carbine fitted with Zeiss Triotar, F/6.3; stop, F/8; 1/2 second; Eastman Film; pyro in film-tank, enlarged on Platora, Semi-Matt, with Verito lens.

The card-party, page 39, typifies a scene that must be familiar to every one. The picture has obvious merits, but the absolute fidelity of the arrangement of the figures — when the players are seated at a table as partners — is missing, because of the gap between the two players nearest the camera, which probably was made in order to ensure good portraits of each member of the party. Considered from an art viewpoint, it was a mistake. The harshness of illumination is due to the print for reproduction. The color-value in the faces and elsewhere in the picture are correct in the other print (a sepia). Data: Century camera; Goerz lens; Hammer plate, flashlight; 4 1/2 x 6 1/2 print.

"Meditation," page 41, is artistic and forceful in arrangement. There is also a sense of largeness in the pictorial design. Data: April, 1915; 2 P.M.; good diffused light outside; 5 x 7 Century View; 7-inch Verito; stop, F/5.6; 6 seconds; 7 x 10 enlargement on Buff P. M. C. No. 8 Bromide paper; diffused negative enlarged with an anastigmat.

## The Beginners' Competition

THE scene in the National Capital, page 43, is extremely pleasing and technically without a fault. With admirable judgment the camerist avoided placing the Washington obelisk in the center of the two beautiful columns. Data: April 13, 1915; 11.30 A.M.; 5 x 7 Premo; 6 1/2-inch Zeiss Kodak Anastigmat; stop, F/11; 3-times color-screen; sun and clouds; 1 second; Standard Orthonon; pyro; Azo E Hard Medium print.

With a love of history, Warren R. Laity created his own theme, page 46, and achieved a very pleasing result. The design is artistic and consistent. The little medieval maiden, in her flowing robes, forms a fitting foil to the stern, feudal, architectural setting. Data: 8.30 A.M.; No. 3 Goerz Dagor; stop, F/8; strong light; 1/2 second; Hydra backed plate; Studio Normal Cyko print.

With a group of trees partly concealing the river as it crosses the view diagonally, the picture by J. K. Hodges, page 47, produces a very pleasing impression. The line of the stream leaves the picture at a point placed with discrimination by the young artist. The shaded river-bank is quite alluring, and lends itself happily to the successful pictorial design. Data: August, 1914; 10 A.M.; bright sun; 3A Kodak; R. R. Lens; stop, F/16.

The cartoon, page 53, by W. R. Bradford, a prize-winner in the "Interiors with Figures" competition — presented to PHOTO-ERA with the artist's compliments — demonstrates with startling conviction that the winning of a PHOTO-ERA prize may have an unpleasant side. It is evident that the poor man is heckled by members of the art-department, and that the capture of the trophy brings him anything but peace of mind. All the same, he is a good sport, for he comes right back with an entry in the "Street-Scenes" contest, confident that he will again be successful.



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## Libeling the Old Masters

THE ridiculous fad of representing all but the face of a portrait-photograph by Cinmerian blackness still has a few benighted adherents. It was practised a few years ago by many portrait-photographers, who fondly believed that they were imitating the old masters. I noticed several such portraits in a recent print-exhibition. Out of a solid black mass—which obliterated every trace of the figure, every detail, together with the entire background—projected the face and the white collar of the sitter. The effect was weird, ghostlike and, of course, quite illogical and untrue to nature.

As the perpetrator of these freaks happened to be in the room, I ventured to ask him if he would be willing to explain the "striking individuality" of his portraits. He did not elucidate very successfully, but informed me that he had simply followed the style of a well-known Boston portrait-photographer who professed to be merely emulating the example of the old masters. "Pardon me; the old masters, did you say?" I made bold to ask. Then the amateur portraitist explained that his friend owned a number of valuable old portraits, the work of Dutch and Flemish masters, in which everything except the face had been painted in deep, solid black, and that what was good enough for a Frans Hals, was good enough for him (the possessor of the painting); hence he *photographed his portraits in that way*.

Here came my opportunity for a little missionary work. I explained to my new acquaintance that the professional photographer in question, although a capable technician, evidently did not understand how those great artists used their pigments, or he might know that in many of the so-called old masters the colors had faded and turned black, the face alone remaining in fairly good condition. Certainly, in their present state they do not give the faintest idea of what they looked like when they left the hands of the artist. In many cases, however, valuable and important paintings have been restored, from time to time; but unless this work of repainting has been done by skilled artists and with the best pigments, the result will prove disastrous and eventually the picture will have lost its original appearance, and its artistic value as well. The great European art-galleries contain many such wrecks, as, for example, "The Last Supper," "La Gioconda" (Mona Lisa) and the "Night-Watch." These well-known pictures have been repainted and retouched so many times—generally by incompetent artists—that they have lost every vestige of resemblance to their former glory. The high price placed upon them by their present owners and by collectors of curiosities is for sentimental or commercial reasons only. There are many genuine old masters in museums and private collections that still retain their original beauty and harmony of color—not so brilliant, perhaps, but unspoiled by the hand of the restorer.

These are the pictures that represent the skill of coloring and draughtsmanship of an old master, and not the blackened and ruined relics whose character is grossly misjudged by ignoramuses, who vainly imagine that such statements will class them as creditable art-collectors. Fortunately, admirable photographic copies of well-preserved masterpieces are issued by prominent art-publishers, at very reasonable prices.

## A Tree-Silhouette

IN traveling through England with his camera last summer, William H. Hill obtained a picture of an aged sycamore tree on the Chesham Bois Commons, Bucks, England, twenty-seven miles northwest of London. As a freak of nature, it is unusually interesting. This tree shows a silhouette of an old man with a beard, a gray cap, a beak nose and a giant head. On account of its shape, it is called the "Punch Tree."



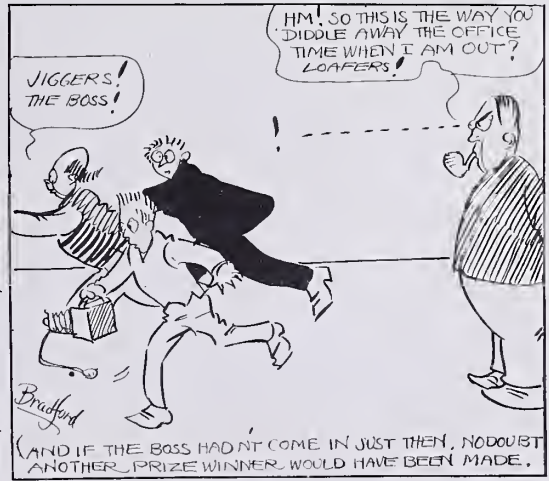
A NATURAL SILHOUETTE WM. H. HILL

## Mendacious Photography

TRICK-PHOTOGRAPHY practised in a spirit of fun and for innocent amusement is not the least objectionable; but I have little patience with deliberately-faked photographs resorted to by sensational publishers and war-lecturers who supply promptly what an excited and indiscriminating public likes to see. Almost any person who is ill informed on a certain subject is deceived easily by exaggerated or mendacious statements, and the story-teller generally "gets away with it"—according to a pertinent slang phrase. The tricks of the cinematographic expert, whereby impossible feats are presented with most convincing realism, are well known. Snapshots made in the shallow depths of West Indian waters are heralded as "motion-pictures of the bottom of the ocean"; thrilling head-on views of fast-moving railroad-trains or of huge warships are made usually with an efficient telephoto equipment at a safe distance, rather than at dangerously close quarters by "the daring camerist who risked his life."

# Terrible Rumpus in "The North American" Art Department! The Cartoonist Wins a Prize in the Photo-Era Competition

W. R. BRADFORD





# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions are solicited for publication

## The Indianapolis Convention

VISITORS to the P. A. of A. Convention at Indianapolis, July 19 to 24, may adopt the practical suggestions made in June PHOTO-ERA.

A special source of satisfaction will be to vote for two such eminently deserving men — L. A. Dozer, for president, and Ryland W. Phillips, for first vice-president, and to see that a thoroughly worthy man fills the place of second vice-president. Perhaps other changes may present themselves.

All should vote to adopt a motion to send to former president Frank R. Barrows the Association's best wishes for a speedy recovery from his present illness.

Address the paid secretary, John I. Hoffman, Washington, D. C., for any bit of information regarding the forthcoming convention.

## The R. P. S. Exhibition

THE Royal Photographic Society will hold its sixtieth annual exhibition from August 23 to October 2 next at the gallery of the Royal Society of British Artists, Suffolk Street, Haymarket, London, S.W. As in previous years, the exhibition will be divided into three sections: pictorial, color-transparencies and a third, including scientific and technical exhibits, color-prints, natural-history photographs, lantern and stereoscopic slides. The prospectus and entry-form for the exhibition are now published and may be obtained on application to the secretary, Mr. J. McIntosh, 35, Russell Square, London, W.C. The latest date for the acceptance of exhibits is July 30.

This is the most representative exhibition of photographic work in the world, and the section sent by American scientific men last year sufficiently demonstrated the place held by this country in applied photography. It is very desirable that American scientific photography should be equally well represented in 1915, and, in order to enable this to be done with as little difficulty as possible, Mr. C. E. Kenneth Mees has again arranged to collect and forward American work intended for the Scientific Section.

This work should consist of prints showing the use of photography for scientific purposes and its application to spectroscopy, astronomy, radiography, biology, etc. Photographs should be in Rochester not later than Thursday, July 1. They should be mounted but not framed, and addressed to Mr. Mees, care of Eastman Kodak Company, Rochester, N. Y.

Mr. Mees will be glad if any worker who is able to send photographs will communicate with him as soon as possible, so that he may arrange for the receiving and entry of the exhibit.

## Interiors and Architectural Subjects

THOSE highly important photographic subjects, buildings and interiors, are treated exhaustively in this issue by two notable experts, R. W. Tebbis, of New York City, and Katherine Bingham, of the PHOTO-ERA editorial staff. Nothing on this subject, more lucid, practical and helpful, has ever been written, and interested readers will benefit accordingly.

## An American Cycloramic Motion-Picture

THE account of the cycloramic motion-picture film found on a German submarine and published in the June issue has brought to our notice one produced in this country as long ago as May, 1914. The photographer is Leon Dadmun of Boston, U. S. A. In making this circular motion-picture, Mr. Dadmun placed his apparatus on top of the partly finished Custom House Tower — erected as a superstructure to the old Boston Custom House — using an Eastman 350-foot motion-picture film, and made a complete circle or cyclorama of the surrounding territory from a height of about 400 feet. The time of exposure was a little over 2 minutes, 16 exposures per second.

The cyclorama has an average territorial radius of 20 miles. It begins with a view looking up Charles River and embracing, consecutively, Cambridge, the Arlington hills, Charlestown, Middlesex Fells, the docks along the waterfront, Boston Harbor with its numerous islands and the ocean beyond, Commonwealth and New England Docks, the Blue Hill Range, Brookline, the Newtons and ending with Beacon Hill, crowned by the State House — all with an imposing foreground of Boston's business-district. It is a magnificent and comprehensive panorama of Greater Boston, which is revealed gloriously as a world-city with a population of approximately 1,500,000. This superb motion-picture was first exhibited at Keith's Theater, Boston, the following June, and is now shown, together with other Boston pictures, in the Massachusetts Building at the Panama-Pacific Exposition. Mr. Dadmun has just made another reel for the convention of the hardware men, St. Louis, July 23. We understand that this film of Greater Boston will be seen in Boston at some prominent motion-picture house during the summer months.

## A Dual Personage

SOME ingenious person has discovered that General Joffre, commander-in-chief of the French army, and General French, chief of the English army in Flanders, are virtually one and the same person. Any one can satisfy himself, in this respect, by simply drawing a vertical line through the middle of the two names, thus:

J O F F | F R E  
F R E | N C H

## A. E. Rinehart

IN the death of A. E. Rinehart, at St. Joseph's Hospital, Denver, May 15, we record the passing of a prominent figure in the photographic profession. Seemingly in rugged health at the age of sixty-three, his death soon after an operation for appendicitis came as a great shock to his many friends.

About forty years ago Mr. Rinehart went to Denver from Lafayette, Ind., and during the mining-boom became the leading photographer of the city. Up to the time of his illness he enjoyed a prosperous business, one of his last acts being to arrange in his display window a portrait-collection of Denver old-timers.

Mr. Rinehart is survived by two sisters and a brother, F. A. Rinehart, also a photographer at Omaha, Neb.

## LONDON LETTER

CARINE AND WILL A. CADBY

If only we were not in the middle of a world-war, prize-photographs might become quite an absorbing subject. *The Daily Mail* has set aside the sum of five thousand pounds as prize-money for war-photographs taken by amateurs, and every week some one or other receives a cheque for one hundred pounds for the best photograph of the week. The consequence is that *The Daily Mail*, day by day, has a page full of pictures made by the camera, all connected in some way or other with the war. There are, of course, scenes from the firing-line, some almost too literal, and saturated with the grim realities of the struggle that is going on. Then, too, there are many sea-pictures; and, incidentally, this prize-offering has brought to light a fact that was not known by most landsmen, viz., that few ships put to sea without a photographer. We knew that ocean-liners could always boast of a squad of camera-men; but we had not supposed that tramp-steamers generally carried cameras, and, if we may judge by the results shown, very capable users. The photograph which, through the courtesy of the art-editor of *The Daily Mail* we are allowed to reproduce, was the winner of one of the hundred-pound prizes, and was taken by the captain of the *Headlands* just before his ship was torpedoed by the German submarine U-20. It is an excellent photograph, and gives one a clear idea of the nearness of the submarine to the cargo-steamer. A captain who can take such a well-arranged view with the certain knowledge that in a few minutes the ship on which he is standing will be sent to the bottom of the sea, must have a cool head and unshakable nerves. But this is not an isolated case, for there have been many pictures of more or less similar subjects that could have been obtained only by one of the officers of the small and slow tramp-steamers that, until the sinking of the *Lusitania*, formed the "bag" of the German submarines. Since that outrage the papers have all been filled with pictures of the big vessel; but we have not come across any views that were taken actually at the time of the disaster, probably because no one on board was aware of the danger until the explosion came. Certainly *The Daily Mail* obtained one or two horribly gruesome prints of some of the victims when brought ashore, and there have been many photographs published of the large number of babies and little children who were drowned; but they were all taken at an earlier and a happier date.

When the war is over and its history comes to be written, this mass of photographic evidence of its various phases, brought together by

*The Daily Mail*, can hardly fail to be of immense value; and certain of the pictures, through their topographical and circumstantial evidence, may have more uses than one; anyway, they will prevent the perpetuation of not a few untruths, that might otherwise have got handed down to, and have been believed by, posterity.

Mr. Claude Freise Greene is reported to have invented and perfected a process of natural-color kinematography which is as simple in operation and as inexpensive as the ordinary black and white films. We hear that a successful demonstration of the new process was given at the Shaftesbury Pavilion lately before an audience of trade-experts. We sincerely hope that all that is claimed for the process is, or will quickly come, true. Everybody yearns for the day when color-photography will be as simple and as cheap as black and white work; and if this Utopia of the photographer is really in sight, our readers may be sure that we shall give them the earliest possible intimation of the fact.

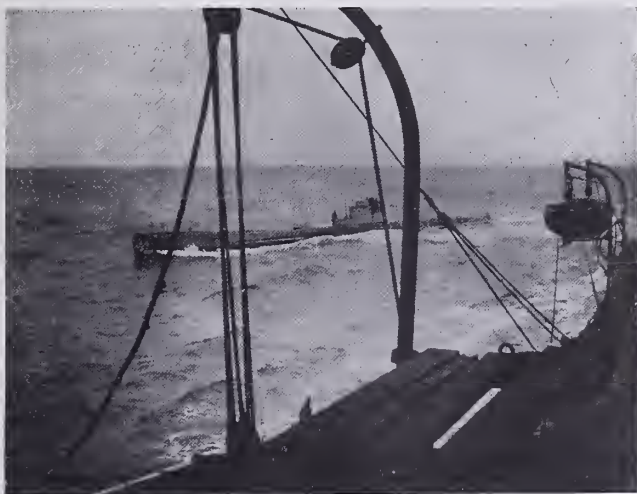
Both space and the Censor forbid much discussion on the subject of aeroplane-photography; but everybody is alive to the fact that it is rapidly developing into a distinct branch of our craft, needing special and very careful training, both for taking the photographs and their development—operations that are seldom carried out by the same person. The importance of this map-making by photography, to the armies in the field, can hardly be overestimated.

Messrs. Houghton have just issued a circular announcing a ten-percent advance on the prices of all plate-cameras, Ensignettes, adapters, darkslides (plateholders) and all wood and metal tripods. This advance has been caused by the increased cost of raw materials and labor, owing, of course, to the war. The handy Rodinal is not always obtainable, and we are getting rapidly used to one-solution developers of English or American make, which have taken its place, and will probably retain it in a great number of cases even after the war.

Hypo, which photographers now use with especial care because of its largely increased price, has made its appearance in the trenches. The German soldiers, who manage the cylinders from which the torture-gases are emitted, wear respirators. This was discovered when a German prisoner was being examined, as one was found in his pocket. The pad contained hyposulphite of soda, with one per cent of some other substance.

On May 10 the Little Gallery of *The Amateur Photographer* opened with a one-man show of the pictorial photographs of Mr. H. Bessenbrugge, of Rotterdam.

This was bound to be interesting, for at present Dutch photography is rather a dark horse. We have seen but little of it in London, and yet, with their artistic reputation, the Dutch workers are likely to show us great things. Mr. Bessenbrugge certainly does not disappoint us, and we



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THE SUBMARINE THAT TORPEDOED THE HEADLANDS



owe a debt to Mr. Mortimer for giving the English public the chance to enjoy a collection of such original and satisfactory work. We had expected strength and restraint from a Dutchman; but Mr. Bessenbrugge surprises us by exhibiting an almost French versatility. We could not help thinking what an object-lesson in variety this exhibition was, and how the prints would have furnished examples to illustrate a lecture covering most of the photographic fields and processes. One could imagine a lecturer pointing to the range of subject and treatment of Mr. Bessenbrugge's portraits, landscapes, etc., and, when the different processes were under discussion, describing the delicate quality to be obtained by the much-despised bromide, using for his illustration a big head-study, and continuing by calling attention to the clever use of what looked like a Royal bromide for stronger subjects.

It seemed that there was nothing this photographer could not make the camera do and no process in which he could not score a success. He has three striking portraits which, in a way, reminded us of the strong German school ("Mr. S.," "The Engraver" and "Mr. W. v. N."); but what sticks most in our memory is a fine, delicate platinum of a woman and chrysanthemums, which is so fantastic and purely decorative that it is hard to believe its origin to be the camera.

There were some excellent Dutch landscapes of old, tall houses with canals and — congratulations on Mr. Bessenbrugge's restraint — only one wind-mill!

But to hark back to the different processes: their number is really very remarkable, and one could imagine the lecturer continuing his discourse and pointing out the platinum prints on thin Japanese paper; from these he would proceed to the study of carbon, gum, oil, bromoil (there are excellent examples of them all) and arriving finally at colored oil, "The Violin Player," which was exhibited in last year's Salon and which we were glad to see again here.

The Camera Club had a very successful exhibition last month of the paintings by Walter Bayes, whose work is also beginning to be known in the States. It has been aptly described by a critic as, "Paint all the time; only Nature for inspiration," so that one cannot help being rather amused and attracted by finding it on the walls of a photographic club. This month there is an exhibition of real camera-work — a one-man-show, by Dan Dunlop, which, judging by the attendance the first day, bids fair to rival Mr. McKissack's in popularity.

It is stimulating, these oppressive days, to find a club that keeps its flag flying like this, and provides distraction and interest for those left behind. Many of its members and most of its executive board are now in France, so that those left in charge need all their pluck and spirit not to settle down comfortably into a groove, instead of keeping things going in the cheering manner they are doing.

"What cameras are mostly taken to the front?" has been our question to any photographic dealers with whom we have come in contact and, as the reader will guess, it has always been some particular and portable make of their own. However, last week we met a war-correspondent who is writing for an American paper and was home from Russia on a month's leave. He showed us a little Folding Pocket-Kodak, postcard-size, fitted with a Zeiss lens, which had done most of his work. It certainly looked as if it had seen some active service. "And when you are not allowed to take a camera," he said, "I always carry this," handing us a little Ensignette.



*Indignant Old Lady* — And to show you how secretly they are conducting the war, I can assure you, my dear, that even I myself positively do not know what a dardanelle is. — *Cartoon.*

## New England Convention

THE Photographers' Association of New England is awake. It will hold its seventeenth annual convention in Copley Hall, Boston, August 10, 11 and 12. Arrangements for addresses by prominent photographers have not been completed, although among those mentioned are the Gerhard sisters, of St. Louis, E. W. Histed, of New York, W. H. Towles and Ryland W. Phillips. Definitely engaged is A. J. Philpott, art-editor of the *Boston Daily Globe*, who will give his well-known illustrated lecture, "Newspaper-Photography." Mr. Philpott will also act as critic, and point out the merit and faults of pictures in the pictorial exhibit. The board is to be congratulated in securing the services of so able a critic and lecturer as Mr. Philpott.

The emblem, this year, is a miniature imitation of a portrait-lens, the design being by Secretary Hastings.

The board may be trusted to provide as good a program as last year's, which won the unanimous approval of the association. Other important arrangements will be made later.

## What's in a Name?

THE expected has happened. In *The British Journal of Photography* for April 30 an excellent article, entitled "The Studio-Room," by one of our leading professional photographers, Mr. Ryland W. Phillips, has been reprinted with credit to *The American Journal of Photography*. Now this latter has for many years been the sub-title of PHOTO-ERA, and, while we should be happy to stand sponsor for the article on its merits, it never appeared in our pages, but rather in the magazine formerly known throughout the world as *Wilson's Photographic Magazine* and recently changed in name to *The Photographic Journal of America*. In these troublous times we can readily excuse our English cousins for almost any degree of mental abstraction; but the incident shows clearly the mistake of adopting a magazine-name similar to one already in existence.

## Telephotography with a Hand-Camera

CAPTAIN OWEN WHEELER, whose book, "Modern Telephotography," is the standard work on this subject, gave an important lecture recently before the Royal Photographic Society in London. In the course of the discussion he was asked what would be the limit of magnification in ordinary outdoor work with a camera held in the hand. He replied that this depended upon the positive element in the telephotographic combination because the working-aperture of the combination is that of the positive multiplied by the magnification; thus with a positive lens of F/4.5 and four magnifications the effective aperture would be F/18. With rapid plates and good light-conditions snapshots would be quite possible; indeed, Captain Wheeler said that he had made exposures of  $\frac{1}{150}$  second, any difficulty being more often due to lack of depth of focus than to underexposure.

## The Field of Publicity

AMONG the desirable sources of publicity, for amateurs as well as professional workers, is the Society of Arts and Crafts, Boston, Mass., at whose headquarters, in Park Street, specimens of handwork of members, including photographs, are constantly on exhibition. A recent photographic exhibit consisted of prints by Bertrand H. Wentworth, W. B. Post, Alice Austin, Karl and Florence Maynard, Sarah C. Sears, Florence M. Tolman (silhouettes), Anne W. Munger, Martha F. Blair and Mary H. Northend. Similar societies in other cities provide identical advantages.

# WITH THE TRADE

## Film-Imports

As we have already stated in a preceding issue, the importation of films from France and England—which was forbidden, through proclamation of Feb. 12, 1915—as a matter of fact has again been permitted, but chiefly with respect to roll-films in the smaller sizes. Whether this will meet fully the wishes of the dealers, appears to be a question. For, even if Germany does again permit such imports, they are opposed by decrees which were issued in England as well as in France with reference to the commercial intercourse with Germany. There remains, then, only the indirect way through neutral countries. However, a scarcity of films would never have occurred had not the German dealers shown a decided preference for foreign-made films and in that way prevented our German industry from favoring the manufacture of roll-films to a greater extent. As for the rest, the permission to import roll-films into Germany—for the above-mentioned reasons—benefits American manufacturers more than the English and French, which, so far as the quality of the product is concerned, is justifiable in every way. The importations from England and France, above all, will be made difficult in this way, that every payment, direct or otherwise, to a hostile country is permitted only by special sanction of the Imperial Chancellor. Otherwise a penalty is incurred. — *Die Photographische Industrie*.

## The Ingento Book

This publication, descriptive of the principal Burke & James specialties, is now ready for mailing and will interest every camerist who cares to send for it. If your local dealer does not have it, address Burke & James, Inc., 242-244 East Ontario Street, Chicago. Particular attention is directed to the pages descriptive of the new line of Ingento Junior cameras, a round-end vertically opening model, in four popular sizes and selling at \$6 to \$12. Rexo paper and Voigtlander lenses also have prominent places, and there are many pages of useful Ingento camera- and darkroom-accessories.

## New Graflex-Features

THE beautiful new catalog of Graflex cameras, now ready for mailing to those interested, upon request to the Folmer & Schwing Division, Eastman Kodak Company, Rochester, N. Y., contains several new features of importance. The prices of Auto Graflex cameras have been reduced considerably and the Autographic feature has been added to the 1A and 3A cameras without advancing the price. Four new cameras are being introduced, including the Compact Graflex,  $3\frac{1}{4} \times 5\frac{1}{2}$ ; the Telescopic Revolving-Back Graflex,  $3\frac{1}{4} \times 4\frac{1}{4}$ ; the Revolving-Back Graflex, Jr.,  $2\frac{1}{4} \times 3\frac{1}{4}$ , and the Graflex Enlarging-Camera.

Another innovation which will interest many workers is a new Graflex Roll-Holder to interchange with plate-holders on Graflex cameras. It is very compact and intended to take the new Eastman Graflex Speed-Film. A retarding-ratchet permits the film to be drawn taut after it is in position for exposure, thus ensuring a perfectly flat focal plane which is invaluable when using lenses at large aperture.

## Autochrome-Finishing

ALTHOUGH the making of Autochromes (color-photography) is a simple process, some amateurs prefer to make only the exposure and let an expert do the rest. Paul C. Guillumette is that man. He also teaches the method from start to finish, ensuring success. His plates of multi-colored subjects—flowers, birds, gardens, landscapes, etc.—which we have seen recently, exemplify the perfection of this wonderful advance in photographic science. See Mr. Guillumette's advertisement in this issue.

## Trilux Exposure-Meter

As correct exposure is the basis of good photography, so every new meter for reading the actinic value of light is of interest. The latest instrument of the sort, the Trilux Exposure-Meter, does this quickly and accurately both in and out of doors. There is no sensitive paper of uncertain condition and no set of glass prisms to break easily. Cylindrical in shape and somewhat smaller than a roll of postcard-film, the meter is entirely constructed of metal. Its use is simplicity itself. At a point where the light falling on the subject and the meter is virtually the same, sight through the eye-piece towards the window of an interior or the brightest point on the horizon. A black cross on a white ground in the end of the meter is illuminated by reflected light which enters through a triangular opening in the top of the meter-barrel. Turning a revolving shutter gradually obliterates this cross, and when the point is reached when further turning would cause it to disappear completely, take the reading where the shutter cuts the scale on the barrel. The exposure thus found, in minutes, seconds or fractions of a second, as the case may be, has been found by several trials to be well within the latitude of a plate of average rapidity (Class 1, PHOTO-ERA Exposure-Guide), with the lens working at F/16.

## The Ansco Film-Pack

THIS was one of the sensations of the Dealers' Exposition in New York recently. It is light- and moisture-proof, preserves a perfect focal plane and cannot be detached from the pulling-strip. The pack may be used in any film-pack camera, or with a suitable adapter in any roll-film or plate-camera. Like all Ansco films, this is non-curling, color-sensitive, extra rapid and free of halation. Last and most important, the tabs by which successive films are pulled around to the back of the pack appear one at a time, so there is no danger of pulling the wrong one, or two at one time. This is a welcome feature, indeed.

## Our Blue-List Advertisers

THE dealers whose advertisements appear in the PHOTO-ERA Blue-List have been selected by the Publisher on account of their reputation for efficiency, promptness and integrity.

The latest accession to the Blue-List is the Tremont Camera Exchange, A. Feigenbaum, manager, a Boston dealer in new and second-hand cameras, whose every customer has only words of praise for honorable treatment received. Moreover, Mr. Feigenbaum's sources of supply are unimpeachable.



## Metal, Fireproof Garages

THE fireproof, waterproof, transportable, inexpensive, metal garages, advertised in this issue, are a positive boon to automobilists of limited means. Nevertheless, their irresistible properties appeal to the rich, also. The workshop, on Atlantic Avenue, Boston, is busy day and night, and in its activity resembles a present-day munition-factory. The Priggen Metal Garage appeals to every motorist. It's a great thing for the country, the camp, the summer-home.

## Optical Fireworks at Exposition

THE friends of the Bausch & Lomb Optical Company will be interested to learn that the spectacular colored light-effects, at the Panama-Pacific Exposition, are produced by the above-named Rochester firm. Batteries of twelve 36-inch searchlights project their powerful rays through revolving colored disks upon the great Tower of Jewels and upon the immense glass dome of the Palace of Horticulture, producing an ever changing procession of colors.

This is but one of the several great illuminating-schemes the Rochester company has been engaged to operate at the Exposition, and the efficiency displayed in this connection is winning it high praise from the visitors to the great show.

A comprehensive exhibit of the firm's optical products, including range-finders for the army and navy, and periscopes for submarine craft, is held in the Palace of Liberal Arts and is viewed with interest by professional men of all classes and the public in general.

## AnSCO Handbooks

TWO new handbooks have been prepared and are now ready for free distribution through your dealer or direct from the AnSCO Company, Binghamton, N. Y. The first, "AnSCO Film," is a complete treatise of negative-making with facts about AnSCO roll- and pack-films, exposure-suggestions, directions for development, formulae of several sorts, and ways to detect the causes of non-success. The second, "Cyko Prints," is a complete treatise of gaslight print-making. It contains all the useful information of past editions of this booklet together with much of value regarding Enlarging-Cyko.

## Assur Colors Win a Gold Medal

THESE sterling colors are being demonstrated at the Panama-Pacific Exposition in San Francisco by Mr. Max Voetter, who has just reported that the jury has awarded a Gold Medal. Those of our readers who have tried these colors will acknowledge that this distinction is well merited.

## Your Camera as a Money-Maker

MANY expert camerists these days are turning to their chosen hobby to recoup their losses in other business-ventures which have collapsed as a result of war-conditions. Indeed, we know of several instances of former amateurs who have recently entered the professional ranks and met success because of their fresh viewpoint and new ways of approaching old problems. And now comes this book, "Your Camera as a Money-Maker," by S. J. Freeman, advertised on another page, which suggests in detail many ways in which this field may be entered with assurance of success, provided the entrant has an aptitude for the work. The book has the merit of being based upon ten years' practical experience.

## A Superb American Lead-Pencil

THE Mikado lead-pencil should be used by every patriotic American, for it is an excellent product, made in the United States and sold by every live stationer.

## Notable Exhibit at San Francisco

WE hear from various sources that one of the finest and most interesting exhibits in the Liberal Arts Building, at the Panama-Pacific Exposition, San Francisco, is the Sprague-Hathaway Studios, of Somerville, Mass. This well-known house, established in 1874, and the oldest of its kind in America, specializes in high-grade portraiture executed in oil, watercolors, sepia and miniatures on ivory, also life-size portraits direct from photographs—work which the professional photographer is not prepared personally to make. For this purpose the Sprague-Hathaway Studios employ a large staff of skilled artists, kept busily at work on orders from photographic studios in every state of the Union.

## Lumière Factory Active

FRIENDS of Mr. Charles Poulailon, formerly manager of the Lumière-Joula Company, New York City, who joined the French colors soon after the outbreak of the present European war, will be glad to know that he is still at the front and in good health. The Lumière brothers are still at the helm as in the past conducting the affairs of the factory in Lyons, France, supplying the available markets of the world—including, particularly, America—with those wonderful products, Autochrome and Sigma plates.

## Snow White

THIS is the name of a new watercolor-paint, made in the U. S. A., which will prove of great interest to card-writers, sign-makers and artists generally. Photographers will find it useful for marking prints, mounts and the leaves of albums. Snow White covers with one stroke of the pen or brush and flows readily from the color-cup of an air-brush. It will not run through the fiber of print or mount and ruin it, nor will it powder or rub off when dry. Snow White comes in pint jars ready to use; it needs only to be stirred a little, placed on glass and thinned with water slightly as applied. The "Special" grade is intended for pen, brush and air-brush, the "Regular" grade for card-writing and may be had in gray, pink, lavender, Alice blue and Nile green. Send 25 cents in stamps to J. W. Johnston, P. O. Box 578, Rochester, N. Y., for a trial jar of "Special" SnowWhite.

## Scaloids

IN these times when no one is buying chemicals in bulk in large quantities, Scaloids provide convenient developers and toning-solutions at moderate prices. Being in tablet form it is necessary only to place two of them in the required quantity of water, crush with a glass rod and stir. A solution so made is fresh, properly proportioned and contains chemicals of the utmost purity. Ralph Harris & Company are the sole agents for the United States, as they are also of the well-known Wellington plates and papers.

## It Is Indeed

It is well that artists and men of science incessantly bring together the bonds of sympathy between nations that politicians are incessantly trying to separate.

Jean Lahor.



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**To Contributors:** Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them, if not available, provided return-postage is enclosed. Authors are recommended to retain copies.

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**Published Monthly** on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain,** Houghtons, Ltd., 88-89 High Holborn, London, W. C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

WILFRED A. FRENCH, Ph.D., Editor and Publisher

PHIL M. RILEY, Associate Editor

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383 Boylston Street, Boston, Mass., U. S. A. Cable Address, "Photoera"





“THE DEEP, DIVINE, DARK DAYSHINE OF THE SEA”

H. C. MANN



# PHOTO-ERA

The American Journal of Photography

Vol. XXXV

AUGUST, 1915

No. 2



MORNING GLORY

FRED. SUTTER

## Canfield Avenue, West

FRED. SUTTER



HIS title seems to meet the most up-to-date requirements. It states exactly what the story is about and yet you can't possibly guess what I am going to say. It was chosen in

preference to either of that overworked pair, "Art Before Your Eyes" and "Beauty on Every Hand," which for a long time has been running around with their tongues hanging out. However, in order to avoid any misunderstanding, I want to explain at the outset that, in spite of the title, this is merely one more "From-My-Doorstep" wheeze, and to explain further that the pictures are offered as suggestions rather than

works of art. They have given some pleasure to various friends, it is true; but this is a long way from Honorable Mention. They fulfil my own home-made rules of composition, which are simple and but two in number. Does the view please? Yes. Does the print represent accurately the principal features of that view? Yes. All right; I'm satisfied. The rest of you can go ahead and explain *why* the view pleases and *how* the camera reproduces its attractiveness.

I live on Canfield Avenue, West, which is an old residence-street with double rows of trees heavily overarching both pavement and walks. The lawns are wide and the far from modern





JANUARY THAW

FRED. SUTTER

houses substantial, but quite beneath notice, architecturally. There are many similar streets in this city and elsewhere. The pictures tell it better than I can; so an end to description. My first point is that there are many subjects well worth picturing right in your neighborhood, and the second point is that, having found a promising subject, you have at least a dozen picture-possibilities readily available, without the excessive effort or discomfort which so frequently restrains even the enthusiast. Don't think that because you have "snapped" it in broad sunlight, you have told the whole story; you haven't more than written the title! Examples of what I refer to are seen in "Fall," "October Afternoon," "The Fog," "Winter," "November" and "January Thaw." Five of these were taken from the same spot, virtually, and the sixth, "October Afternoon," was taken from a point about one hundred feet down the walk. The very great difference between the various views is due to the weather-conditions and the seasons. If you examine them side by side, you will observe the similarity; but you don't have to exhibit them that way, and proper spacing in point of time or location makes this similarity disappear. Every picture which illustrates this article was taken within our block. Whether I have made good pictures out of all these, is not the question. The pictures are

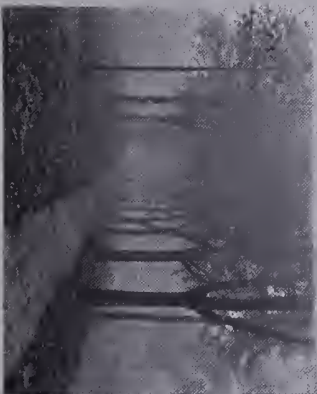
there and offer opportunities to the careful camera-user.

If you are a city-dweller, like most of us, you are well aware of the practical difficulties which discourage the most determined resolution to go out and get something during the next good snowstorm or the next this or that. It is one thing to walk to your trolley-car in the snow and quite another to drop off that same car out in the country amidst sub-arctic surroundings. Go ahead and do it — I am not a wet blanket — only don't think you must shelve the camera between expeditions. "Supper-Time" and "Five Below" may not be great pictures; but they served to gratify that desire "to take something," and, as they were my first and second attempts at night-photography, they gave considerable satisfaction. It might be well to mention that, in making exposures like these, it is necessary to hold something in front of the lens when bright lights pass by; but you can disregard pedestrians. While we were walking around after taking "Five Below," looking for something else, we ran across another amateur photographing a similar scene with a big 8 x 10. The exclamation, "I thought I was the only bug out to-night!" was entirely spontaneous and seemed to cover the case fully. We swapped experiences for a moment and I learned that he was using stop F/6.8 and an exposure of thirty



FALL

FRED. SUTTER



Five Below  
November

FRED. SUTTER  
The Fog

After the Shower  
October Afternoon





NORTH RIVER

S. P. EMERICK


minutes. Also that the old lady and her husband living on the corner, after carefully looking at him from the porch, had gone into the house, bolted the door, and pulled down every shade!

Go on the principle that, if you can see it, you can photograph it, and you will be surprised at the number of successful pictures you will get, provided you do something more than press the button. "Morning-Glory," for example, looks exactly like the actual view, when the sun streams through the mist. It is very probable

that most of these pictures will be dubbed conventional by the experts; but I am not writing for them. The photographic high-brow needs no message from me; in fact, I haven't got one for him. My suggestion to seek pictures about your neighborhood and to recognize the important part played by rain, fog, mist, sunlight or even street-lights in such pictures, is addressed to the chap who has worked out of the drugstore-class and, like myself, is beginning, if not to see the light, at least to be aware that it exists.

# An Efficient Finder

JOHN L. WELLINGTON

N a sense, the most important thing about a picture is the manner in which it fits into its frame; you can be convinced of the fact if you will fancy the result of making photographic exposures with your eyes shut. It does not greatly matter whether your intentions are artistic or not; you always have a subject that is to be fitted, not into the wide world, but into four conventional, straight-line boundaries, and a due consideration of these boundaries will make the picture more pleasing to the maker and more proper to its purpose. Thus we have finders.

But the ordinary finder is inadequate. If you were going to view the finished picture in the size in which the finder offers it, well enough; but we like it larger, we like a print 8 x 10, 11 x 14, with reasonably good definition. Unfortunately we find that what the finder told is discredited by endless added fact. If we are lucky, the new matter may be pleasing, but more often it is otherwise.

Of course the most complete remedy is the use of an 8 x 10 view-camera; and for definite, assured results and quality the large instrument cannot be equaled in its field. But in many cases it is impossible, and we are prone to cling to the folding pocket-camera on account of its facility and the ease with which it eats yards of yellow film, hoping always that we may be able to train it to a greater efficiency.

About all that the little finder is good for is to show the disposition of the largest masses. It may seem that for pictorial purposes this would be advantageous rather than otherwise, and it might be so if the finished product would contain no further detail. But this is rarely the case even with diffused printing, particularly when figures are included. You cannot add unobserved details and chance accents without destroying the effect of the original arrangement. For instance, a figure of fair size may be included. In the finder the general action and form may be visible — and of course the proper disposition as a whole is of the greatest importance — but the shadows which model the features, invisible in the finder, are capable of ruining the effect. And all of this applies with equal force in the more frequent practice of procuring personal records, which we try to make as pleasing as may be.

If you are using a tripod, the work of the finder may be improved by using in connection

with it a strong pocket-magnifier. The glass reveals much new detail, but it is awkward and impracticable for hand-camera work.

Not long ago I bought a small roll-film camera of foreign manufacture, which was equipped with a wire-finder in addition to the ordinary, small, brilliant finder. This finder permits a direct view of the subject through an eye-hole which slides into the back when not in use. It proved to be the most useful part of the equipment, and I found that the number of satisfactory negatives was more than doubled through its help. I found that endless trimming, in the endeavor to force prints into pleasing proportions, was obviated; the negative could usually be printed in its original proportions, the  $2\frac{1}{4} \times 3\frac{1}{4}$  could be enlarged two or three or more diameters without disheartening surprises. This led me to experiment with Kodaks by fitting homemade wire-finders. The results were gratifying, and I venture to describe the simple apparatus.

With a pair of small pliers and fairly stout brass wire construct a rectangular frame of the exact proportions of the negative made by the camera. The wire should be continued from the lower corners, on the one side to pass around and be supported by the finder; on the other side to be supported by the front-board in the manner shown in the sketches, where Fig. 1 shows the wires attached as for use, and Fig. 2 shows them detached, but in the same relative position.

The frame, ABCD in the figures, is bent from one piece of wire. At D it is formed so as to clip around the finder, and at C, where both ends of the wire join, a clip is formed to attach to the side of the bed of the camera. The eye-piece, E, is formed from a second wire which is curved to pass around the spool-ends of the body of the camera at F and G. The frame must be so constructed, of course, that the sides and ends shall be horizontal and perpendicular when the camera is level. The distance from the frame to the eye-piece should be about the distance from the center of the lens to the film. The eye-hole, E, must be straight back of the center of the frame; or, in other words, it must occupy the same position, in reversed relation, as that occupied by the lens with regard to the film. The plane of the frame should be parallel to the plane of the film, but its exact position up and down or to the right or left is not of importance so long as the foregoing conditions prevail. Brass wire should be used, not copper, which is too soft and



will not hold its shape nor have spring enough to clip itself into position.

In use, the camera is held tightly in both hands against the face, leaving a finger or two free to touch the release or press the bulb — the finger-release is generally more steady for slower exposures. This position affords the decided advantage of permitting the exposure to be made at the normal height of the eyes — an advantage which must be utilized to be fully appreciated. Too often a subject which appeared attractive from the normal viewpoint is not so from the waist-line; and unfortunately the fault is not evident in the small finder, but shows itself too late in the finished print. It is easy to stoop with the direct view-finder, but it is impossible to use the ordinary finder at the eye-level.

Then again, if the whole angle of view is too large, a smaller portion may be composed within the wire frame by withdrawing the eye to a proper distance behind the eyepiece, and the corresponding portion of the negative used.

The most important advantage, however, lies in the ability to see clearly and definitely all that you can possibly reproduce in the print, no matter how much you enlarge. Your power of selection is wonderfully increased. If the subject is mobile, you can choose with assurance the favorable moment, which in hand-camera work is of the utmost importance. The use of this style of finder relieves much of the feeling of doubtful chance, which is the accompaniment of too many exposures; it lends a confidence which can be obtained otherwise only by the use of the reflecting-camera, and even here let us stop, before concluding, to make a comparison.

I have used several reflecting-cameras, and two of them are at present esteemed faithful friends; but — you must use them down at the waist-line; they weigh something; they are *not* pocket-cameras; with them you cannot make exposures of  $\frac{1}{5}$  second in the hands; they are practically useless on a tripod. Finally, with the smaller sizes you cannot see nearly so much

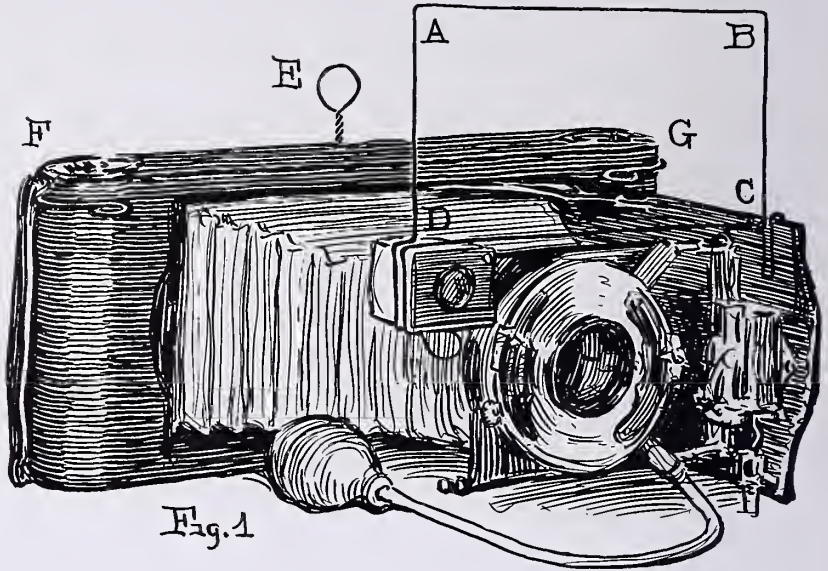


Fig. 1

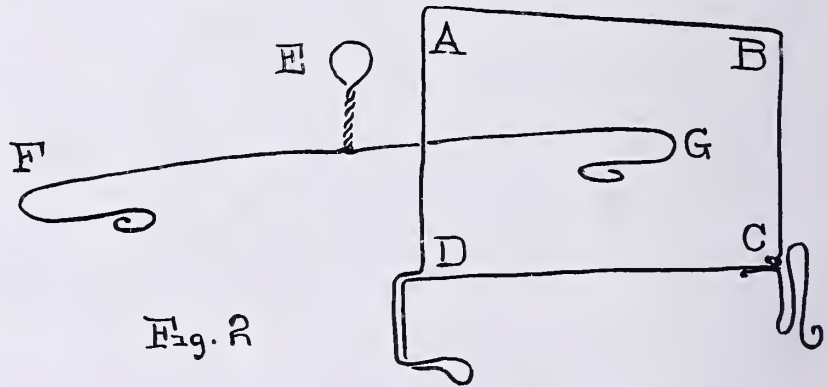


Fig. 2

on the ground-glass as through the improvised wire-finder of a Kodak.

The wires are easily attached and detached; a glance will show if they are in proper position; and, when not in use, they may be carried in the pocket or fastened to the outside of the case by the flap, the strap and a rubber-band. This home-made device can be made in a few minutes' time and a trial will demonstrate its efficiency and convenience.



ALL ABOARD

WILLIAM LUDLUM, JR.

## Side-Trips in Camera-Land in a Canoe

WILLIAM LUDLUM, JR.

**I**N approaching this subject, canoes and Canada always seem to me to be synonymous; I can never think of the one without recalling the other. Canada is the land of lakes, and wherever lakes abound the canoe is at home. Most of my canoeing-experience, with a hand-camera as part of the fishing-outfit, has been in the Algonquin Park region of Canada where there is really more lake than land. A sort of a sylvan Venice, where all business and pleasure are transacted by means of a canoe. Not to be a canoeist is to be out of the swim, socially and otherwise. It takes a little experience and practice to be able to "sit tight" and preserve a proper balance; but a few upsets will soon cool the desire to shift the center of gravity and after that all is "plain sailing."

One of the popular sayings in reference to canoeing which has a very pointed meaning is, "A paddle in the hand is worth two in the water." I proved this to my satisfaction, one day, by striking a snag, a submerged stump, and

in the surprise of the shock dropping the paddle. I happened to be the only human "floater" on the bosom of this particular lake at the time, and before I rescued my lost paddle by the slow and tedious effort of hand-propulsion in the midst of contrary and exasperating currents I fully appreciated the sound wisdom of this sage remark.

Fishing with a camera, somehow, doesn't sound as appropriate as hunting; but when one stops to think of it, it is very necessary to "get a line" on any subject before attempting to make a record of its capture. Even the professional photographer knows this to be a fact and is continually fishing for customers, a line here, a line there, and on his ability as a fisherman depends his success as a business man. "First catch your fish," and first land your client, amounts to the same thing in the end. Fish before fry and client before cash is the only formula to fill an empty stomach or a depleted pocketbook.

When canoeing with a camera as companion, always provide some kind of a waterproof cover-





OFF FOR CAMP

WILLIAM LUDLUM, JR.

ing for the outfit; the possibility of an upset is ever present, and a water-soaked camera is a bad thing, either for good temper or good pictures. I know one man who even goes so far as to attach a "life-line" to his camera — one end fastened to the handle and the other tied to the canoe. In case of a sudden spill, in deep water, he is sure of being able to haul up his outfit from the bottom of the lake. The camera would, of course, sink; but the canoe, with the line attached, remains floating. It has never occurred to him to shorten his line and tie the camera to the canoe; but then, he is one of the far-sighted kind who thinks that "the longest way around is the shortest way home."

This life of the open, in the atmosphere of God's free air, is the only experience that offers a real excuse for drifting. With paddle shipped, to lie back and drift whither the wind and the current listeth, to the accompanying music of lapping waves, in a sea of silver, beneath a sky of dust-free azure, is to live, live as living was meant to be in Creation's plan. The march of civilization has made us what we are — clothed us, fed us and housed us in the lap of luxury; but who would not, at times, trade it all for the free existence of the unconventional savage? The

city is truly the abode of the evil one; but the open country is God's own and its influence ever uplifting and beneficial.

Of the many or special advantages of any particular variety or style of canoe, I know not, being first and foremost a camera-man; but I can surely attest to the delights of this method of side-tripping. It has always been my good fortune to find a fellow-voyager willing to assume the paddling part of the expedition, leaving me free to make use of my photographic proclivities. Sometimes he would land me on some convenient point and while he fished, close inshore, I hunted. In this I had a decided advantage; for while the fish were apt to be coy and shy of biting, I could always find "game" willing to stand and deliver. Of course, it is understood that I make "game" of everything picturable. "Fisherman's luck" is a very uncertain quantity — all hinges on the "luck"; but camera-luck is a fish of another color. He who trusts to luck in photography never arrives at the landing-stage. Observation and study, combined with the "know how" of pictorial selection, captures the prize.

Some may complain that this side-trip is like Artenus Ward's lecture on the moon, canoeing with the canoe left out; but, and here's that

same old but again, my craft is only a ship of convenience, another means to the same old end — the photograph. When a man takes unto himself a camera as a steady habit his trouble begins, and, as with the possession of a wife, it never leaves him. He looks at everything through a lens-barrel, with the sole object of confining it to the limits and proportions of a print. At the same time I know of no better way to give wings to this spirit of photographic adventuring than the drifting, gliding motion of a canoe. It soothes the turbulent mind and breathes a spirit of peace to the soul, and in that peace comes the true appreciation of nature's beauty. Even to the tried and expert artist accomplishment is largely a matter of mood, and that condition which establishes an atmosphere of content controls the merit of the production.

Just a hint as to the how and what of picture-making on all outing-trips. Don't spoil every scenic possibility by the introduction of unnecessary human figures. A native inhabitant, now and then, appropriately costumed and placed, may add to the effectiveness of the picture; but beware the toggged-up city cousin, the fashion-plate in a rustic frame. So many amateurs seem to consider every vacation-picture in the light of a family-group when, for all intents and purposes, the backyard at home would answer just as well. I have seen so many good prints ruined by the ever-present family member or members that I am really "het up" on the subject. When on an outing with a camera, if genuine picture-results are expected, leave the family, theoretically, at home. Smith at Niagara Falls, Brown at Mt. Washington, and Jones at Lake George present nothing to the vision but Smith, Brown and Jones; the background of landscape is utterly lost in the family personality. Take as many of the family along as the purse will afford; but keep them behind the camera. If my wife ever sees this in print, I know what will happen,

though I am willing, in a good cause, to stand the consequences.

What about the outfit? Why, any good camera, film or plate will answer for a canoe-trip, the roll-film having the preference on account of its portability, although a plate-camera, with focusing-screen, is best for serious work. In the mountain- and lake-countries, where the air is so clear and the light holds out until late in the evening, a tripod is not a real necessity as "snaps" can be made at most any time of the day with the lens stopped down to F/16. Some of the most beautiful prints I have ever seen of the lake-regions are the product of the pocket-camera, and where "chance" pictures only are to be taken, as the opportunity offers, I would not advise carrying a more cumbersome plate-outfit. A ray-filter is advisable at all times, not too deep in color, but just enough to retain a proper balance of values. In the lake-country the sky is often the most interesting portion of the view and without the use of a ray-filter its many beautiful changes of cloud-form and color are hopelessly lost. All film is now made orthochromatic; but if plates are to be used, select the double-coated orthochromatic variety and use a weak developer to give the under coating a chance to come up.

The many excellent articles published in PHOTO-ERA, on the practical and technical side of photography, will furnish all necessary instruction for making and finishing the prints. As the "shoemaker sticks to his last," stick to your magazine-friend, that once a month points the way to success and through its kindly aid works out your personal proficiency. As to side-tripping, whether on foot, by motor or by canoe,

it is only a pleasant means of gathering in the harvest won by past study and application, and in proportion as you have absorbed the true principles of the photographic art will be your success. "Paddle your own canoe," aim high and — blaze away.



THE CANOE-LANDING

WILLIAM LUDLUM, JR.



NEW YORK HARBOR-SCENES

Outward Bound  
A Floating Palace



On the Jersey Ferry  
On the Hurricane Deck

Down the Hudson  
The Ferries off Cortlandt Street

PHIL M. RILEY

# Photography on Coastwise Steamers

PHIL M. RILEY



**T**RANSATLANTIC travel will hardly provide a popular vacation-possibility this summer, but happily there are other ways to get on intimate terms with the sea without the worry of a constant lookout for submarine

periscopes and cruising raiders. Most of our important ports, some one of which is within the reach of almost everybody at vacation-time, have their coastwise steamers which set forth daily or tri-weekly upon routes both short and long. Aside from furnishing ideal week-end and vacation trips, these steamers offer splendid picture-material, particularly for the inlander in whose eyes maritime things still seem unique.

First of all, there are the short overnight trips, such as Boston and New York to Portland and Bangor; Washington and Baltimore to Newport News and Norfolk; Buffalo to Cleveland, Toledo and Detroit. To take such a trip without a camera would be folly indeed. To be sure, the time in which to work is short; but in midsummer the days are long and the light actinic; the sun rises early and sets late, so that one sails and arrives during the hours when atmospheric effects are the most beautiful.

Who cannot recall vividly his first five o'clock sailing down the winding channel of Boston harbor when the low sun in a blaze of glory back of the Custom House Tower emphasized the blue of the water to seaward, the brown of the sandbluffs and threw every cottage-studied promontory and island into strong relief? Who will ever forget passing, for the first time, under those gigantic bridges across the East River, around the Battery and into the Hudson at eight o'clock next morning, meanwhile gazing upon the most wonderful skyline in the world which, through the sunlit morning-mist, suggests the dream-city of an Arabian Nights' tale rather than the metropolis of America? Likewise the rock-bound, tree-clad islands and precipitous shores of the Maine coast and the pastoral scenes along the Penobscot River, below Bangor, paint an indelible picture upon the retina of every seeing eye.

These examples are cited not because they excel all others, but because I know them well and they are dear to me. Other harbors, San Francisco, Seattle, Portland, are as picturesque as Boston harbor; other rivers, the Mississippi, Columbia,

St. Lawrence, Hudson and Potomac, are even more lordly than the Penobscot; other protected waters, Delaware and Chesapeake Bays, Long Island and Puget Sounds, are fully as interesting in their shipping as Penobscot Bay; but New York, as seen from the harbor, stands unique and unexcelled throughout all the world. It is a *port* at which to begin photographic work upon coastwise steamers, and it is *the port* at which to end it; wherever one goes, New York looks good upon returning. Indeed, one need travel no farther than the ferries which ply between Manhattan and her neighbors to gather a wonderful collection of varied, interesting and beautiful marine photographs.

Then there are the longer trips, such as Boston to the Provinces; Savannah to Baltimore, Philadelphia and New York; Buffalo and Detroit to Milwaukee and Chicago; San Francisco to Portland, Seattle, Los Angeles and San Diego. Or, if one craves the pleasure of a real ocean voyage to foreign shores near by, so to speak, there are the lines from New York to Bermuda, Cuba, Jamaica and Porto Rico, and from New York and New Orleans through the Panama Canal and around to San Francisco.

Every one of these trips presents innumerable photographic possibilities at the start, *en route* and upon arrival. On the pier and about the ship, all is activity. Stevedores hustle the baggage and small freight aboard while cranes hoist the heavier pieces, and the noise of whistles and steam-winchies fills the air. Lighters come alongside with coal and still more freight from neighboring piers. A line of taxicabs and carriages leaves the well-to-do in the pier-shed while immigrants trudge in on foot, heavy laden with babies and handbags. Porters escort their chattering charges up the gangplank followed by fathers, mothers, sisters and brothers to see them off.

Aboard ship the decks are alive with promenaders, every face expressive of happiness or of sorrow. Some are absorbed in conversation, others watching the animated scenes about them. Beyond the stern, huge buildings tower skyward until it seems as if they might topple into the harbor; beyond the bow, tugs with barges or schooners in tow, excursion-boats and an occasional ocean-liner or fireboat pass as if in review. Then comes the "All ashore!" call: farewells are said, gangplanks and hawsers are thrown off, the whistle shrieks forth its lengthy warn-





LOWER MANHATTAN FROM THE EAST RIVER

PHIL M. RILEY

ing, handkerchiefs flutter among the great throng on the pier and the ship moves majestically out into the channel.

Who can say that this is not picture-material of the highest order? Genre, marine and architectural work offer a broad range. But let us at present confine ourselves to the former, because the marine-work is such as may be had in the channel and will be taken up in detail later; whereas the architectural work will almost take care of itself, provided the camera is held level — not tilted upwards — and one is content with what the rising front alone will give. Good genre-negatives are the more difficult to make, particularly about the pier where the light is much less intense than on deck aboard ship. The requirements are the very contrary of those for shipping in the harbor or scenes aboard ship the next day while at sea.

partial obstruction of the aperture in a low-cost inter-lens shutter is eliminated; even with high-grade inter-lens shutters these speeds may often be doubled, so much greater is their efficiency of operation. It will be necessary to find something to rest the camera on, but railings and packing-cases are usually at hand and may be

The problem is to stop motion and not underexpose. Speed-plates and films of double the ordinary rapidity are useful and an anastigmat lens working at F/5.6 or F/4.5, or two or four times as fast as an F/8 rectilinear, will prove a boon, indeed. Eight times normal efficiency, obtained in this way, will bring most pier-house scenes at five o'clock within a range of  $\frac{1}{10}$  to 1 second, according to the window-area overhead. With a focal-plane shutter these speeds may be increased three times, because the period of opening and closing and consequent



BUSINESS AND PLEASURE

PHIL M. RILEY

utilized ; tripod-work is out of the question here as it is aboard ship. It will be necessary also to watch for the moments of least motion of the persons included. On the gangplanks between the ship and the pier, and also on deck, exposures of  $\frac{1}{25}$  second, sometimes even  $\frac{1}{50}$ , reduce the danger of blur, yet ensure correct exposure.

Spontaneity is the charm of such pictures and it depends upon unconsciousness of those included. The operator of a small hand-camera has a big advantage, and on the same principle the film-user scores ; but whatever the instrument, learn to handle it rapidly and unostentatiously and school yourself to make quick decisions as to composition and judgments as to exposure. Otherwise your subjects will become conscious of you and spoil your pictures by looking at the camera.

As the ship passes down the harbor, a some-



A FREIGHTER DOCKING

PHIL M. RILEY

what different scheme of work must be adopted corresponding to the difference in the subjects offered. There is the pier just left, the receding city from several viewpoints and, most important of all, the shipping of many sorts passed and overtaken. The light will now be ample on a fair midsummer day until six o'clock.

Working in the open, as one does aboard ship, reduces the exposures to one-half or even one-fourth those necessary for an average landscape on shore, according to the nature and distance of the subject, and that permits exposures of  $\frac{1}{30}$  to  $\frac{1}{60}$  second at F/8 on plates or films of ordinary rapidity from 5 to 6 P.M. and 6 to 7 the next morning. These exposures will be fast enough for the receding city, distant shores and shipping ; but in photographing watercraft within 100 or 200 feet, their rapidity of motion must be considered in order to avoid blur.



LATE AFTERNOON ON THE HUDSON

PHIL M. RILEY



A BREEZY MORNING AT SEA

PHIL M. RILEY

ON THE COMPANION-LADDER



It is well to remember that two steamers traveling in opposite directions at the rate of fifteen miles an hour are approaching each other at the rate of thirty miles an hour and the shutter must be set accordingly; also that objects moving directly across the field of view require three times the rapidity of exposure for objects moving directly towards or away from the operator, and objects approaching or receding obliquely require twice the same standard of rapidity. On this basis the relative shutter-speeds at a distance of 100 feet would be  $\frac{1}{225}$ ,  $\frac{1}{150}$ ,  $\frac{1}{75}$ , and at a distance of 200 feet,  $\frac{1}{120}$ ,  $\frac{1}{80}$ ,  $\frac{1}{40}$ . Thus it may be seen that the most extreme of these conditions is brought within the range of the eight times normal efficiency already referred to, obtained either with a rapid lens and shutter or a rapid lens and fast plate or speed-film. However, the best views are usually made obliquely, so that either a rapid lens, a fast plate or film, or focal-plane shutter alone will meet most requirements. Broadside views of passing vessels are to be avoided as a rule, although the downward perspective from a large ship on to the decks of a smaller craft is sometimes uniquely interesting.

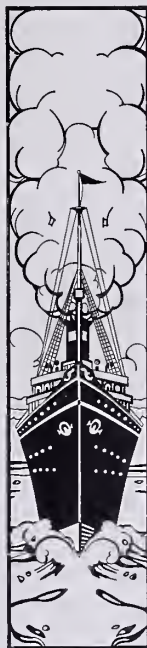
Next morning, when the ship enters its port of destination, more opportunities similar to those of the night before present themselves. There is the harbor-shipping, the approaching city, the watching throngs on deck, happy greetings at the gangplank and other pier-shed scenes much like those before sailing. From six to seven o'clock light-conditions are virtually the same as from five to six in the afternoon, any yellow light the night before very likely being offset by a slight, misty morning-haze. Of course, the later the arrival the better the light and the shorter the exposures may be. From eight to nine they need be only half those for the same subjects from six to seven.

On a longer trip, the following day may be devoted to scenes aboard ship, of which an observing eye will find many. Each of the various decks has its characteristic picture and in photographing them the promenaders should be watched carefully for the best grouping, always provided those included have given their consent to be photographed. Let the actual exposure be made surreptitiously, however, in order to ensure spontaneity. Views looking aft from the bow and including the bridge or wheelhouse, as well as those on the hurricane-deck showing spars and smoke

stacks, are always interesting. Then there are genre-pictures of the crew and passengers — the lookout at the bow; the captain on the bridge; officers making the noonday-observation; groups of men smoking and story-telling; a rollicking party of young men and women; honeymooners leaning over the rail or enjoying the quiet luxury of twin steamer-chairs; children all excitement over their first experience out of sight of land, and the games peculiar to seagoing ships. Once again the small, unobtrusive hand-camera scores, and the negatives, if good, may be printed satisfactorily by enlargement to almost any size.

Then there are outdoor portraits of the members of your own party, preferably full figures standing and sitting. For work of this sort rapid films, plates or lenses are unnecessary, for the light is rather too bright than otherwise. As most of the woodwork about the decks is usually painted white and reflects much light, not more than one-fourth the exposures required for an average landscape will be needed, and from nine o'clock to three in bright midsummer sunshine this would be about  $\frac{1}{50}$  second at F/16 or  $\frac{1}{200}$  at F/8. If the day be hazy or overcast and the light well diffused without sunshine, it is all the better for portraits, as it reduces the very common danger of squinty eyes. Exposures should be the same as at F/16 on a bright day. When the sun shines, make portraits on the shady side of the ship with the subject looking at something not too bright on board rather than seaward in order to minimize the eye-strain.

The marine-views obtainable from coastwise steamers make their strongest appeal when there are unusual atmospheric conditions, such as strong clouds, gathering mists, approaching showers, striking sunsets or shafts of light through the clouds. Avoidance of halation and true rendering of color-values are, therefore, important considerations. Thus it is desirable to use double-coated or backed plates, or else films which, because of their thinness and backing of black paper, are practically non-halation. Likewise orthochromatic plates are desirable to obtain better rendering of the yellows and greens and a ray-filter to neutralize part of the over-actinic blue so prominent on the water, tending in the negative to merge sea and sky. A three-time screen is plenty deep enough to give good cloud-effects and a distinct gray tone to blue sky. Its use will not cause trouble in the matter of shutter-speeds and underexposure except under extreme conditions.







RHYTHM IN NATURE

*Courtesy of Platinum Print*  
SPENCER KELLOGG, JR.

## The Rapid Drying of Carbon-Tissue

PAUL LEWIS ANDERSON

**T**HE many advantages of carbon-printing are too well known to need recapitulation in the present article, so I will confine myself to a discussion of the methods available for the avoidance of one of the chief drawbacks to this most valuable of all printing-processes, namely, the length of time required for the tissue to dry after sensitizing.

All carbon-printers are familiar with the fact that the tissue, in ordinary circumstances, takes several hours to dry, so that it is seldom possible to use it on the day of sensitizing, and with the other fact that unless special precautions are taken, a continued spell of unfavorable weather, which would prevent printing for several days, would also spoil the tissue, which, in damp weather, will become insoluble without exposure to light.

The Autotype Company has introduced a spirit-sensitizer to overcome this drawback, but this sensitizer has the disadvantage of being rather expensive, and tissue sensitized with it requires, in damp weather, sometimes as much as an hour to dry. Of course, those workers who possess a Cooper-Hewitt, or an arc-lamp, are independent of weather-conditions, but for those who use daylight the ability to print within ten or fifteen minutes after sensitizing is of great value. Therefore, it is my purpose to describe a method which will reduce to a minimum the time that must elapse after sensitizing before the tissue may be printed from, and at the same time to give a formula for a spirit-sensitizer which, though inferior to that of the Autotype Company in keeping-quality, is less expensive. Satisfactory keeping-qualities may, however, be



THE FRONT STOOP

KARL STRUSS

obtained by making up an aqueous solution of the bichromate, which keeps indefinitely, and adding the required amount of alcohol just before use.

The rapid drying of tissue sensitized with a spirit-sensitizer depends on two facts: first, that part of the solvent used to carry the bichromate salt is replaced by a volume of a more volatile liquid; and second, that, the sensitizer being more concentrated, it is not necessary to apply so much of it to the tissue as by the immersion-method. Hence, there being but a relatively small amount of water in the tissue, it evaporates more rapidly than would be the case if there were a larger quantity present. Contrary to the usual belief, however, the presence of alcohol or ether does not cause more rapid evaporation of the water itself.

The following formula is that given by the Rotary Photographic Company, and is an excellent one, with the exception that it does not keep for more than a few weeks:

Ammonium bichromate.....	1 ounce
Water .....	3½ ounces
Alcohol (95 per cent).....	3½ ounces

It is necessary to use the ammonium salt for the reason that potassium bichromate is not soluble in less than ten parts of water. If it is desired to use a still greater proportion of alcohol, in order that the tissue may dry still more rapidly, sodium bichromate, which is soluble in an equal part of water (one ounce of the salt in one ounce of water), may be used, and the proportions of water and alcohol modified accordingly.

An alternative method of drying the tissue rapidly is to remove the water from the gelatine by means of an alcohol bath, immersing the tissue for some minutes in either wood-alcohol, denatured alcohol or grain-alcohol, before hanging up to dry. If this is done, two points must be noted, as they are of importance. The first is that it will not do to place the tissue direct from the sensitizer into a bath of





CHATHAM SQUARE, NEW YORK

KARL STRUSS

full strength alcohol, as the extraction of water from the tissue is so rapid that minute blisters may be formed, and these will not retract perfectly on drying. Hence, the tissue should be squeegeed lightly while resting face down on a glass plate, to remove the surplus solution, and should then be immersed in a solution of equal parts of water and alcohol for five minutes, being then removed for five minutes to a bath of three parts of alcohol to one of water, and being finally placed for the same length of time in a bath of full-strength alcohol. If then placed to dry, it will be found ready for use in fifteen minutes or less.

The saving of time by this method over the use of spirit-sensitizer is not great except in very damp weather. The method depends, of course, on the fact that alcohol has a great affinity for water, extracting it from other substances very readily. The second point to be noted is that the use of citric acid in the sensitizer is not possible if alcohol is employed, as the alcohol will

precipitate the citric acid, so that the use of Bennett's formula for sensitizing is precluded.

Bennett's formula is the best for general use in carbon-work, involving the use of citric acid and ammonia, and giving better gradation and purer lights than are obtained with a simple solution of potassium bichromate; but if the tissue sensitized in the latter is dried rapidly, the gradation and purity of the lights are better than they would otherwise be, so that when this is done the superiority of Bennett's formula is less marked than when the tissue is dried in the ordinary way.

In conclusion, I would say that my own practice is to use Bennett's formula except in emergencies, as tissue sensitized with it keeps well under pressure for several days, and it is seldom that I am unable to find an opportunity of printing in that time. When, however, it is necessary to print soon after sensitizing, I employ the spirit-sensitizer for sheets 11 x 14 or smaller, and the alcohol-bath method for larger ones.



LOWER NEW YORK, TWILIGHT

KARL STRUSS

For the information of those who may not be familiar with it, Bennett's formula is given here-with, in a slightly modified form which the writer has found to give excellent results.

Water .....	30 ounces
Potassium bichromate .....	960 grains

Dissolve and add

Citric acid .....	240 grains
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When dissolved, add, a little at a time, stirring constantly

Stronger ammonia .....	q. s. to turn from orange to yellow. The change resulting from the addition of the ammonia is very marked.
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Add

Water to make a total volume of .....	64 ounces
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The tissue should be immersed for two and one-half minutes, laid face down on a clean glass plate, and squeegeed lightly to remove the surplus moisture, then hung up in the dark to dry.

Most tissues, if sensitized in this manner, are about the same speed as P. O. P., though Ivory Black and the mezzotint tissues are somewhat faster. If hot water is used to dissolve the bichromate, the solution must be allowed to cool before the citric acid is added. An equal weight of sodium or ammonium bichromate may be substituted for the potassium salt.

*The American Annual of Photography.*



It is astonishing how readily one who is endeavoring to express himself becomes a good technician, often without conscious effort in that direction. — Paul Lewis Anderson in *Pictorial Landscape-Photography*.





SUNLIGHT ON THE WATER, ARVERNE  
KARL STRUSS





STILL-LIFE

F. W. HORSMAN

## The Importance of Working Up Commercial Photographs

ROBERT F. SALADÉ

**L**O find an exceptionally good commercial photographer and retouching-artist is certainly a hard task," remarked the Advertising-Man to his friend, the Publisher. "I have a machinery-catalog now in hand that will require at least four hundred photographs of machines, parts, etc. The illustrations must be made and retouched by an artist familiar with that class of work. Honestly, I don't know where to find such a man. Bowen, who is an amateur, fell down on my last job. I must get results on this order."

"There are many good retouching-artists in the photographic profession," replied the Publisher, thoughtfully; "but few of them understand how to make known their talent and abil-

ity to the business-world. Like most artists, they are shy of publicity. However, I can give you the name and address of one man who can turn out the finest kind of work in your line. He is over in the Big Town — gets a great deal of special illustrative work for the larger advertisers. Walter Townsend is his name, and he is a modern business man in addition to being an artist. Let me tell you how he established himself. It's very interesting."

"Go ahead; I'm all attention," the Advertising-Man responded.

"Ten years ago Townsend had a little studio in the down-town section of the Big City, and although a master of his art, he hardly earned ordinary wages, as he was making portraits and





GOD'S "SUN" WITHOUT, GOD'S "SON" WITHIN  
WM. LUDLUM, JR.

was located in the wrong part of the town for that class of work. His place was flanked on all sides by great manufacturing and other big business-houses. Circumstances forced him to consider the possibilities of commercial photography.

"One day fate brought him in touch with a young retouching-artist who was without employment. At luncheon, that noon, the two hatched an idea that has since made both of them well fixed financially. A week later, Townsend's window contained an attractive display of commercial photographs retouched in a masterful way. Townsend had done all the photographic work and his new friend, Edward Goudy, had

retouched the prints. Over the window was hung a neat sign with an inscription somewhat like this :

<p>HIGH-GRADE COMMERCIAL PHOTOGRAPHY</p> <p>RETOUCHING</p> <p>SPECIALIST IN PHOTOGRAPHIC ILLUSTRATION FOR ADVERTISING-PURPOSES</p>
--

"Then Townsend had some fine booklets printed exhibiting halftone-plates made from ordinary photographs *not* retouched. Duplicate pictures of the same subjects, made from photographs *retouched*, were also shown in the booklet.



THE GHOST OF THE CAMERA-FIEND F. RUDOLPH SEAVEY

The effect was remarkable. Even a layman could appreciate at a glance the advantage of having advertising-photographs retouched. The booklet was written in a pleasing, non-technical style, and explained how all the fine points in the finish of an automobile, for example, could be brought out in a catalog by having the photograph worked up with the proper kind of art-detail.

"The booklets were mailed to a selected list of advertising-agencies, publishing-houses and general business concerns that were known to have issued high-grade illustrative advertising-matter. The large manufacturers of machines, etc., were included, of course. Well, within three weeks after the booklets had been distributed, Townsend received large orders for commercial photographing and retouching from a dozen big firms, and a number of other concerns indicated that they would soon be in the market for such work. Business increased so rapidly that Townsend found it necessary to put on an assistant to Goudy — Goudy doing the fine detail-work, while his assistant filled in on the less intricate parts."

"Townsend knows how to put out the right kind of publicity," admitted the Advertising-

Man, admiringly. "I couldn't have done any better myself."

"Oh, Walter understands how to sell his brains to the best advantage," eulogized the Publisher. "Listen to this: Recently he received an order for taking one hundred photographs of unique electrical appliances. The illustrations were to be retouched in the best possible way for the making of four-color plates. The idea was to show pictures of the devices as they appear in reality. The copper- and brass-work on the articles were to appear in natural colors, for instance. This catalog was to be one of the finest ever published — designed to reach a very select trade."

"Now after Townsend had taken the photographs, before having them retouched, he had ordinary one-color halftone-plates made from them. Then Goudy and his assistant applied the art-work to the prints with exceptional skill. By special arrangement with the buyer of the catalog, Townsend had several hundred copies printed for his own use. They certainly contain the most beautiful illustrations of the kind I have ever seen. I have a copy at home which I will let you look over. It is certainly great work, believe me."





THOROUGHWORT

C. L. POWERS

"I know the rest," laughed the Advertising-Man, deeply interested. "Townsend then had the ordinary plates which were made from the plain photographs printed up in another catalog for comparison."

"That's the idea, exactly," returned the Publisher. "It cost considerable to do this, of course, but the proposition has paid for itself a thousand fold. These specimens of his work Townsend distributed personally to large advertisers he was acquainted with. I was one, and he now gets all of my work in the retouching-line."

"I'll let him have my business, too," said the man of publicity, enthusiastically. "He is a man after my heart, for he knows how to advertise, showing just what he can do in the specimens of his work."

"Isn't it strange that professional photographers do not, as a rule, follow Townsend's plan of advertising?" asked the Publisher. "Consider the wonderful possibilities of the advertising-field for any good photographer."

"It's a mystery to me," conceded the Advertising-Man, lighting a cigar which his friend had just passed over to him. "Actually, a photographer who can do good retouching can make new business."

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IN the last analysis, all acquired knowledge must come from effort on the part of the student, the most that the teacher can do being to indicate the direction which the studies should take. — Paul Lewis Anderson in *Pictorial Landscape Photography*.



EVENTIDE  
A. NEUMEYER





# The Sulphide Toning of P. O. P.

H. W. WINTER



IT is possible that others may have tried the process about to be described; but at all events I have never seen it in print, nor have I met any one who has practised it. Whether it will compete with gold-toning in the permanency of its results I cannot yet state, because the prints made by it are only a few months old; so far, however, they show no signs of deterioration. In any case, for many purposes the question of permanency is of quite secondary importance, and where this is so this method of toning has much to recommend it on account of its cheapness, its simplicity and the certainty of its results.

There are no stock-solutions to spoil by keeping; there is no tiresome mixing, as in the case of the gold-bath; and no uncertainty as to the color of the finished print, as there often is if one does not use just the proper amount of gold in the latter; and, moreover, the toning is not influenced to any great extent by temperature.

As far as I can see at present, there is only one pitfall, and that is consequent upon the rapid action of the toning-bath, which necessitates a careful watching of the print, and its removal from the bath, and instant washing, just prior to the full tone being reached. This is the chief point on which the success of the operation depends, since too long an immersion is likely to result in a print of very unpleasing appearance.

The paper to be used is ordinary P. O. P. (not the self-toning variety), and printing is to be carried out as usual, to a depth slightly less than is necessary for gold-toning, the very highest lights being maintained practically clear. The print is then to be fixed in a hypo-bath of ordinary strength (say 1 oz. of hypo to 7 oz. water) for ten minutes, after which I recommend washing in running water for about fifteen minutes. It is not necessary, however, to wash free from hypo, since the presence of hypo does not appear to influence the toning in any way. When I first used the method, I washed in water before fixing, as one does in ordinary gold-toning, but this course seems to be quite unnecessary.

The fixed and washed print is next placed in a very weak solution of potassium sulphide, the exact strength of which is of no material importance, however, provided that it be not too concentrated. A formula which gives the maximum strength is:

Potassium sulphide.....	1 grain or 0.5 gram
Water.....	52 oz. or 1,000 c.c.*

Tap water may be used in making up this solution, which may also be used until it is exhausted — that is, when it has lost its yellow color. On immersion in this bath the print will immediately lose its yellowish tint, and pass through fairly well-defined stages of reddish brown, brown and purplish brown, to which will succeed a paler color approaching sepia; this last, however, is generally uneven, the lighter tones being particularly degraded. The purple-brown stage is, in my opinion, the most handsome, but, unfortunately, if left so long, the print has a tendency to pass to the next and unpleasant stage before one can arrest the toning-action. It is safer, therefore, to remove it to the washing-tank the moment the brown tone is reached.

As indicated above, the action of the sulphide-solution is extremely rapid, and consequently the prints must be manipulated singly in it; indeed, the best plan is not to allow them to leave the hand at all, but to hold them by one corner so that they may be slipped out into the wash-water with as little loss of time as possible. Since toning is only a matter of seconds, this is not particularly tedious.

A thorough washing in running water, such as is usually given to eliminate hypo, will complete the process, and, when dry, the prints should be quite evenly toned to a warm brown color.

I have tried to modify the toning-action by using the ferricyanide and bromide solution as ordinarily employed in the sulphide-toning of bromide prints, and also with a chromic-hydrochloric acid mixture; but my experiments did not lead to any successful result, and I have, therefore, simply recorded the foregoing straightforward method of working, as it was first tried, thinking that it may be of some interest, and perhaps use, to any who care to try processes which lie off the beaten track of everyday photography. — *The Amateur Photographer*.

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\*The addition of a few drops of alkali (either ammonia or solution of caustic soda or potash) will improve the keeping-quality of this solution, but is not essential to the toning-action.



THE finest strength is that which is controlled.  
— Paul Lewis Anderson in *Pictorial Landscape-Photography*.

# EDITORIAL

## Hackneyed Camera-Themes

WHILE it is gratifying to note the growth of activity among camera-users, it is regrettable that so little originality is shown in the choice and treatment of camera-subjects. One of the aims of every discriminating worker should be to avoid the conventional, the commonplace. In his eagerness to photograph nearly everything in sight, the novice is inclined to pay little attention to the freshness of his camera-motives. He may even spend considerable time to discover an interesting subject; but through lack of experience and familiarity with pictorial selection, his album is filled with everyday-subjects. If his object be to choose for his camera scenes that have only a personal interest, well and good; but he must not be disappointed if they fail to arouse any particular interest among his friends, at the camera club, or in a pictorial competition. It is no satisfaction for a successful pictorialist, an art-critic or a publisher to examine pictures the subjects of which have already engaged the attention of nearly every camerist. Though it is commendable that the novice begin his activity with the portrayal of domestic scenes, including, of course, the first baby resting in its mother's arms, and father and mother each in a favorite attitude, he will restrict the use of such pictures to relatives and intimate friends, unless they possess extraordinary pictorial merit, in which case they will undoubtedly be admired by the outside world.

It is not so much the theme itself that need worry the amateur-camerist as the manner of depicting it. Even familiar landmarks will gain in popularity if presented in a novel or unusually attractive setting. Troyon, tired of seeing so attractive a rural scene as a flock of sheep returning homeward, represented at sun-down with long shadows falling to the right or left of the group, conceived the idea of painting the sheep directly against the setting sun, producing a striking and thoroughly natural effect in *chiaroscuro*. The picture created a sensation, but the novel thought was soon appropriated by others. About a dozen years ago an eminent amateur photographer, known for the weirdness of his themes, originated the "Crystal Ball." The picture made a hit and the idea was widely imitated. It has lost its novelty and is now numbered among the hackneyed subjects. The

once popular "fish-bowl," with a child gazing interestedly at its contents, no longer elicits enthusiastic approval and is also on the list. The same is true of the oft-repeated path in the snow; the perfect reflection; the lone fisherman; the sleeping child with head on table ("All Tired Out"); the young society-bud presented as "The Débutante," and the mother and child, labeled "Madonna." Many camerists seem to think the only way to illustrate a rainy day is to picture a person with an umbrella over his head, whereas a messenger-boy in a dripping rubber-coat, or a newsboy soaked through, save his bundle of papers, or even a long-haired dog wet to the skin and sadly trudging along in the muddy street, conveys the idea with equal if not greater force, and in an unconventional way. The expedient of concentrating the interest of several persons in a book held by one of the figures is another favorite topic. However, it becomes somewhat ridiculous when the group is so large that some of its members are obliged to look from the extreme right or left, or over the shoulders of those in front, obviously seeing little or nothing of what appears to interest those nearest the book. Note with what originality and artistic success A. Gottheil has managed a group of four young clerks discussing a business-transaction. See PHOTO-ERA for February, 1915.

Perhaps the most common of hackneyed subjects are the humanized cats and kittens. They are depicted in a great variety of interesting but totally unconvincing attitudes, generally in the act of performing simulated tricks such as smoking a pipe, playing a musical instrument, or sagely reading a book. Such pictures may well amuse the little folk, but can hardly be regarded in the light of serious work, although, if expressing the humor and technical skill of a Belle Johnson, feline subjects would have a reason for being. If, however, the amateur insist on choosing a superannuated theme and he would avoid a bald imitation, let him study the possibilities of composition and lighting and from these try to extract something that shall be different from the rest.

In the field of professional portraiture, with its numerous daily sittings, great variety in pose and lighting cannot be expected; but a tendency towards monotony can be avoided by the individuality of treatment, and the intelligent use of accessories and background or by their virtual omission.



# PHOTO-ERA MONTHLY COMPETITION

*For Advanced Photographers*

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition, 383 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15 unless they are packed with double thicknesses of *stiff corrugated board, not the flexible kind, or with thin wood-veneer*. Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize-collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards—Street-Scenes

**Closed May 31, 1915**

*First Prize:* Alfred W. Cutting.

*Second Prize:* Anson M. Titus.

*Third Prize:* William S. Davis.

*Honorable Mention:* Chas. P. Abs, Mabel Heist Bickle, W. R. Bradford, F. E. Bronson, Wm. H. Fisher, Mrs. C. B. Fletcher, T. W. Lindsell, Dr. Rupert S. Lovejoy, Alexander Murray.

Special commendation is due the following workers for meritorious prints: W. E. Fowler, J. F. Webster, Elliott Hughes Wendell.

## Subjects for Competition

"Outdoor-Sports." Closes July 31.

"Public Buildings." Closes August 31.

"Clouds in Landscape." Closes September 30.

"Garden-Scenes." Closes October 31.

"Vacation-Pictures." Closes November 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.



**Photo-Era Prize-Cup**

IN deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## Change of Address

MANY of our subscribers wish to have their addresses changed on our mailing-list during the vacation-months of summer. In order to avoid delay in the receipt of PHOTO-ERA, and possible loss in forwarding, we urgently suggest that all requests for changes of address be sent to us before the 5th of the preceding month, as the envelopes must be addressed and classified for mailing on the 20th.

## Clouds in Landscape — Photo-Era Competition

Closes September 30, 1915

It would hardly be possible to overestimate the part that the ever-shifting cloud-canopy plays in our enjoyment of the beautiful "out-of-doors." In all its moods — from grave to gay — it is a joy and an inspiration, this wonderful, ever-changing sky above us, an inspiration not only to the Shellys and the Ruysdaels of the world, but also to the everyday people who feel their burdens slip away as they lift their eyes to the great cloud-chariots, and are borne away to lands of dreams.

That child has been defrauded of his birthright who has not lain on his back among the clover and let his imagination picture to him strange forms of beast, of bird, and of human face among the ever-shifting clouds. But it is not only the rolling cumulous forms, so purely white against the deep blue of the sky, that have their fascination. The soft dove-grays and blurred outlines of the rain-clouds that blot out the blue vault and hang low and heavy over the dimming landscape have a character and charm all their own, and for pictorial purposes are less spectacular and blend more submissively with the landscape than the more self-assertive cumuli, to say nothing of photographing more successfully.

It is surprising how a softly clouded sky will transform what was an uninteresting photograph into a very charming picture. Knowing the desirability of clouds in one's landscapes, the next question is how best to obtain them. The first and logical method to suggest itself will, of course, be to "get them in the negative"; but this is often impossible, for one cannot always wait for clouds to appear in a cloudless sky. When the clouds are there, however, every effort should be made to secure them. For this purpose a color-sensitive plate and pale ray-screen should be used, if possible. There are disadvantages in the ray-screen method, for it does away with much of the atmospheric effect and makes distant hills come forward unduly. There is on the market a graduated screen which can be used to advantage as the depth for the sky is much greater than for the landscape; but care must be taken not to have the sky overcorrected or the blue will take so dark as to look as though thunder-showers were threatening. A soft gray cloud will not require the screen-treatment, particularly if a film or orthochromatic plate be used; but the white cloud against a blue background will seldom show up without some assistance of that kind.

The mistake is often made of shortening the exposure when it is desired to show clouds in the sky. When this is done, development must almost always be prolonged to bring out shadow-detail, with the result that the sky is hopelessly blocked and all detail lost. The opposite treatment should be resorted to. If full exposure is given, you will have obtained detail in the shadows when the highlights are properly developed and a soft-printing, detailful negative will be obtained.

If, however, you have clouds in the sky that will not print without overprinting your landscape, there are obvious ways of overcoming the difficulty. One of the simplest is to cut a piece of cardboard to suggest roughly the sky-line and hold it in such a manner that it will shade the landscape during part of the exposure. It should be kept in motion over the joining of sky and landscape that no hard line may appear. Another way is to coat the plate with ground-glass varnish, scraping it away from the sky-portion and working over the part retained with black lead, if the varnish alone does not restrain the foreground sufficiently. Then there is the method of local reduction. Farmer's reducer is the old standby and I

know of nothing better. If the plate has been dried, soak for some time in clear water, then surface dry it and if the horizon-line is much complicated by projecting trees or other objects, dip a brush or tuft of cotton in glycerine and coat the parts not to be reduced; then with a brush or cotton wet in the reducing-agent, go repeatedly over the sky-portion, sliding the plate into a tray of water occasionally to prevent uneven action. When the sky is sufficiently thinned so that it will harmonize well with the rest of the plate, wash thoroughly and dry.

If there were no clouds in the sky when the exposure was made and a hopelessly "bald-headed" sky appears in the print, it is sometimes better to make no attempt at suggesting clouds, but to give simply a graduated sky-effect. The blue of the sky is more intense and darker towards the zenith, and not infrequently all that is necessary to give the impression of atmosphere and sky-quality is a little shading in the upper part of the print. This is easily given by placing the undeveloped print on a flat board and covering with a piece of card quite a bit larger than the print. Turn to the light and slowly draw the card down until the print is exposed nearly down to the horizon-line, then slowly return to position. Try first with a small strip to ascertain the amount of shading that will best suit the landscape.

There will be times, however, when a suggestion of cloud-forms will be needed to balance and perfect a cloudless picture. For one who has any skill with brush or pencil the easiest way is to put clouds on the plate so that one printing will be all that is needed. If the sky is one that prints a dull gray, all that is necessary is to work in a sky on the back of the plate, either with oil-paint as a medium, working it up with the finger-tip or a piece of velvet or cloth, or else coating the plate with ground-glass substitute and working in the sky with lead and a stump. Care must be taken to have the sky quiet and unobtrusive, and the clouds must appear to receive light from the same direction as the landscape.

If, however, the sky is one that prints a dead white, the task is not so simple. The foreground must be held back by the use of ground-glass substitute which has been slightly colored. Experiment is the only teacher here and a tint must be arrived at which will allow the sky to print without overprinting the landscape.

The method of printing-in clouds is the next to be considered. For this purpose cloud-negatives must be made. They should be varied in kind and in lighting and should be a trifle larger than the plates with which they are to be used. Exposure for them should be short and development slow. The plates should be thin but crisp. Do not point the camera too high, for zenith-clouds are very different in character from those near the horizon.

Having secured a variety of plates, select one that seems best suited to the view that is cloudless, and proceed as follows. Take a print of the landscape and cut along the line of the horizon and preserve both portions. If the sky prints white, you will not need the sky-mask in making the print; but if it prints gray, the sky-mask should be adjusted on the glass side so as to just shade to the horizon. The print thus made is then adjusted on the cloud-negative chosen and the other mask so adjusted as to cut the least bit below the horizon and a short exposure given. Care must be taken to have the sky delicate and not too heavy for the landscape. If still-water is included in the view, another complication arises, for the clouds must show an inverted reflection in this mirror. This necessitates a third printing which must be done in the same way as the sky and very carefully adjusted to be in harmony with the rest of the print.

If one obtains a genuinely satisfactory print by this method, much the simplest way is to copy this print and make future prints from the second plate, thus doing





A BUSY MORNING IN TANGIER

ALFRED W. CUTTING

away with the slow and painstaking work required for successful double-printing.

Sometimes a sky is so spectacular that it may well be made the subject of a picture. When this is to be done the sky-line should be kept low and simple, giving full prominence to the cloud-masses.

Study the sky at all times of day and of the year and make yourself so familiar with its marvelous pageantry that you will know instinctively what sort of cloud-forms will be most suitable to any subject and whatever method you pursue you will not go far astray.

KATHERINE BINGHAM.

### Platinum Printing

CONSIDERING the ease of manipulation and the beauty of the results it is surprising that more amateurs do not make use of platinum as a printing-medium. With it may be obtained prints of great variety of tone and quality, of wonderful gradation from deepest shadow to strongest light.

There seems to be an impression abroad that a particu-

lar negative is required for platinum-work and that it is a difficult process to learn. This is by no means true. Any fair average negative will make a good platinum print and the process is one of the simplest possible.

Some precautions must be taken about the care of the paper before use. It is purchased in tin tubes, well sealed, and containing a small piece of calcium chloride to absorb any moisture that may find entrance, for moisture is the great enemy of platinum paper. When dry this preservative is hard, but becomes softened when moisture has been absorbed. It should then be dried in the oven until hard and returned to the can. If this precaution is observed, the paper will keep for a long time.

The yellow side of the paper is the sensitive side and goes next to the plate in printing. The light in which the printing should be carried on depends on the character of the negative to be printed from. If the plate is one that is strong in contrasts with dense highlights, the stronger the sunlight in which you print it the better will be your results. If, on the other hand, the plate is thin and lacking in contrast, print it in the shade and even under one or two thicknesses of tissue-paper.



STREET-SCENE IN JERUSALEM

ANSON M. TITUS

Printing under direct sun is quite rapid, and the prints should be examined frequently, but very slow in a diffused light, as in the shade of the body turned away from the light. The only thing in the process that requires practice or skill is the judging of the correct depth in printing. The image shows a faint purple on a yellow ground, and printing should be stopped before all detail in the highlights is visible. The detail in the middle-tones should be faintly visible and the shadows should have a decided purple tone. Experiment is the best teacher here, and if one selects some one bit of detail which is just visible when the print is carried to proper depth a uniform lot of prints may be easily obtained.

The standard developer for the gray papers is neutral oxalate of potash 1 pound to 100 ounces of water. This is used at full strength and may be used repeatedly if a little fresh solution be added each time. If blue-black tones are desired, 4 ounces of potassium phosphate may be added. The temperature of the developer should not fall below 65 degrees or granularity will result.

Place the developer in a porcelain tray, using the solution at least an inch deep. Slide the print evenly under

the developer and agitate vigorously for a moment to dislodge any air-bells that may form. If any are observed still adhering, touch lightly with the finger. The prints develop rapidly, but should be left in the developer for a couple of minutes to ensure full development. Nothing is gained by rushing through an overtimed print, for a flat, mealy result is all that will be gained.

When development is complete transfer at once without previous rinsing to a tray containing the clearing-bath of 1 ounce of hydrochloric acid to 60 ounces of water. Prints may remain in this bath until all are developed. When the last print has been in this bath for five minutes, transfer them all, one at a time, to a second bath of the same strength, where they remain for ten minutes and are then transferred to the third bath for fifteen minutes. If this bath shows any tint of yellowness, they should have another five-minute bath, but ordinarily the three baths are sufficient. The prints are then washed in running water for twenty minutes and then dried between clean blotters.

The processes for sepia are the same except that the developer is used at a high temperature for most papers and is differently composed. The Angelo sepia is an ex-





LOWER FIFTH AVENUE, NEW YORK

WILLIAM S. DAVIS

ception to this rule, for it is developed in a cold bath. The developer is put up by the paper-manufacturers as is that for most of the sepia papers, and directions for temperature and time of development accompany the package.

The choice of surface is determined largely by the size and class of the work to be done. For large work with broad masses, the rough papers are an ideal medium, but used on small negatives with fine detail they would fail entirely to do them justice. For such work the smooth papers are ideal. Willis & Clements' Japine has a very smooth surface that renders fine detail to perfection. The choice of color also requires some discrimination. A snow-scene or sea-view is more appropriately rendered in shades of gray, whereas autumnal scenery, firelight-effects, etc., are better represented by the warm sepias and brown tones.

Paper should be carefully stored and not left out of the can too long between exposure and development. With these precautions and a little practice in judging proper depth of printing, there should be much pleasure and little trouble for the amateur in platinum printing.

KATHERINE BINGHAM.

### Chart of Cloud-Formations in Natural Colors

THE Weather Bureau, U. S. Department of Agriculture, has issued in the form of a chart as well as a booklet a classification of clouds for the guidance of observers in the identification of the several cloud-forms according to the International System of Classification. There are twelve beautiful plates in colors, about 4 x 5 inches, which illustrate the following cloud-formations—cirrus, cirro-stratus, cirro-cumulus, alto-cumulus, alto-stratus, strato-cumulus, nimbus, cumulus, cumulo-nimbus, stratus, fracto-stratus and fracto-cumulus—arranged according to the elevation of the cloud. The plates show at a glance the cloud-types found in the different cloud-levels, and an accompanying table gives, in some detail, the mean heights in summer and winter, as determined by a series of observations at different places and latitudes. A copy of this extremely useful publication, chart or booklet, may be had by sending 40 cents to the Superintendent of Public Documents, Washington, D. C., who will send it post-paid. Participants in the monthly competition, "Clouds in Landscape," will find this collection of color-plates a great help.

# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department

Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Metol-Hydro-Pyro Tank-Developer

THE Ansco Company is now advocating a new three-agent developer for Ansco roll-film and the new Ansco Film-Pack. The time of development is 20 minutes at 65 degrees. Dissolve the chemicals in the order named in half the quantity of lukewarm water and then add cold water to the full amount.

Water .....	46	ounces
Metol .....	4	grains
Hydroquinone .....	15½	grains
Sodium sulphite, anhydrous .....	186	grains
Sodium carbonate, anhydrous .....	100	grains
Oxalic acid .....	3	grains
Pyro .....	19½	grains
Potassium bromide, 10-percent solution	22	drops

## The Covering-Power of Lenses

THE term "covering-power" is often used in a vague fashion, and it is always necessary to define in what sense the lens is supposed to "cover" a given size of plate, or angle of view. Speaking generally, we may divide covering-power into two types: one denoting the action of the lens as regards definition and requiring delicate tests for the correction of aberrations, and the other simply denoting the action of the lens as regards illumination of the plate and requiring only simple, physical measurements. The second is the sense in which we are considering the matter here, and there is a point in connection with this side of the question that is not generally appreciated. If we look through a lens obliquely, we find that at one particular angle the circular stop-aperture just begins to be cut by the lens-mount. This gives us the limit of the area that the lens will cover with "full illumination," which area is very small with some lenses. If we increase the tilt of the lens until half the aperture is obscured by the mount, we arrive at the limits of the area of "semi-illumination," which is the extreme area on which we may expect to find usefully uniform light-effect on the plate. If we expose on a white surface, giving only the briefest possible exposure, we shall get a fairly uniform patch, representing a little more than the area of full illumination, but the light will distinctly fall off towards the limits of semi-illumination. A longer exposure will tend to equalize matters; for where the light has acted most the plate is less sensitive, and the less exposed margins will tend to catch up with the center as regards density, wherefore an exposure of ordinary duration on an ordinary subject will not show much signs of falling-off. A very brief "high-speed" exposure will, however, show a marked falling-off, whence it follows that lenses covering very small angles, or areas, with full illumination, are not suited to high-speed work unless we use a plate of relatively small size that covers within the area. On the other hand, such a lens may serve quite well for portraiture or landscape-work, where a full exposure can be

given. Long-focus lenses often appear more rapid than they were expected to simply because the narrow angle they include on the plate falls within the angle of full illumination. If the image fell outside this angle, double the exposure would be necessary to give equally good results. — *The British Journal of Photography*.

## Dust on the Surfaces of the Lens

A GENERAL heaviness and opacity of the whole negative is usually attributed to overexposure; but it is well to remember that there may be other causes for such a result. One of these is the scattered light in the camera, due to the use of a dusty lens. It does not follow from this that the lens should always be wiped before making an exposure; the result of such a course would ultimately be that all the negatives made with it suffered from the same defect — from the destruction of the fine polish of its surface. The thing to do is to wipe the lens only when it is necessary, and to keep the lens capped, if possible at both ends, when it is not in use. — *Photography and Focus*.

## Diffused Light in the Darkroom

MOST of the small darkroom lamps at present on the market are fitted with clear ruby or orange glass, so that a glaring light, which is not nearly so comfortable or so satisfactory to work with as diffused light, is thrown on the bench. A sheet of ground-glass makes a splendid diffuser, but the groove into which the ruby or orange glass slides is generally too narrow to admit an extra sheet of glass. A piece of translucent paper will also serve, but is open to the objections that too much light is absorbed, and that when replacing the screen, after lighting the lamp, the paper may be crumpled, after which it is difficult to get it into place. A very satisfactory way is to matte varnish either one or both sides of the glass; usually one varnished side will be found sufficient. This gives the necessary diffusion without absorbing too much light. The ruby glass itself, which is flashed, cannot be "ground," as this would take away the color. — T. O. in *The Amateur Photographer*.

## Correcting Distortion

IT is well known that when a photograph is taken of an architectural subject in which there are vertical lines the surface of the plate or film must be vertical, or these lines will no longer appear parallel in the picture. This can be remedied when enlarging or reducing, or otherwise copying with a lens, by swinging either the original or the easel until the lines are seen to be parallel once more. If only one is swung, then, although the lines are made parallel, and therefore distortion is no longer very noticeable, there is still some distortion in consequence of a foreshortening or closing together of the horizontal lines, and if we want to avoid this also, both the original and





THE TRAIL OF THE UPHEAVAL

MRS. C. B. FLETCHER

the copy must be swung in opposite directions. This has another advantage, in that it very much helps the focusing, a much larger stop being possible when both negative and copy are swung than when one is kept vertical.

*Photography and Focus.*

### Deferred Fixing for Tourists

A METHOD which has proved perfectly satisfactory in the writer's hands, says Mr. G. W. Bryant in *Photography and Focus*, when touring is to have a spare dish in which is placed a mixture of one part of sulphurous (not sulphuric) acid as bought and five parts of water. It should smell strongly of burning sulphur. The developed negative is rinsed for half a minute and is then placed in the dilute acid, in which it may remain for five minutes or more. It can then be freely examined in daylight. Another rinse or two — more if opportunity offers — and it can be put up to drain and dry, and when dry may be packed away, film to film, with another of its kind, to be fixed and washed on the return home. The work has usually been done in an hotel bedroom at night, and the negative stood up to dry overnight, so that in the morning it will have been exposed to daylight for some time, but no ill results were ever apparent.

### A Pinhole-Stop in the Lens

A PINHOLE itself does not give a perfectly sharp picture, although sharp enough for many purposes; but if a stop no larger than a pinhole is used in a lens, then the picture will be critically sharp all over, and at the same time the exposure required will be as long as if the pinhole were being used by itself. Ordinarily the photo-

grapher wishes to make his exposures as short as possible, but there are occasions when he requires just the opposite. For instance, if he has to photograph a shop-front in a busy street, he will find the traffic very troublesome. If he goes in the early summer morning, all the other shops in the view will be shut, and the place will look dead. But if he uses a pinhole-stop and a slow plate, he may easily prolong the exposure to half an hour or more, and in that time all the moving traffic will have become quite invisible. A similar result can be got by using a color-screen with a plate that is not orthochromatic; a "five times" screen may then prolong the exposure two or three thousand times, and so give what is required. — J. R. Broughton-Milne in *Photography and Focus*.

### Belated Entries

PARTICIPANTS in our monthly competitions, particularly those who send from a long distance, will please remember that third-class mail travels slowly — sometimes. This is particularly true of pictures that are mailed only a day or two before the closing of the contest for which they are intended, as has been done very frequently, we are sorry to state. Not even first-class mail nor a special delivery stamp will avail in such cases, unless the package proceeds from a near-by point. A number of interesting entries intended for the "Landscape with Figures" competition were received July 5 — five days too late! Most of them came from the Far West, mailed probably June 30, the closing date. The prints for this contest were judged July 2, and prize-winners were notified the same day. We can only express our regret and sincerely hope that these entrants will be a little more expeditious in future.

# THE ROUND ROBIN GUILD MONTHLY COMPETITION

## For Beginners Only

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

### Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

### Prizes

*First Prize:* Value, \$5.00; *Second Prize:* Value, \$2.50; *Third Prize:* Value, \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "**General**"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

### Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. Criticism on request.*

4. Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. **Be sure to state on the back of every print exactly for what contest it is intended.**

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8x10 or mounts larger than 12x15, unless they are packed with double thicknesses of *stiff* corrugated board, not the flexible kind, or with thin wood-veneer. Large packages may be sent by express, very cheaply and with indemnity against loss.

### Awards — Beginners' Competition

Closed May 31, 1915

*First Prize:* F. A. Hasse.

*Second Prize:* A. J. Weis.

*Third Prize:* Myra D. Seales.

*Honorable Mention:* F. G. Hammond, Jos. Heineman, Harlan C. Lang, L. W. Lyon, Charles D. Meservey, C. Howard Schotofor, R. C. Schultz, Harry Sloan.

Special commendation is due the following workers for meritorious prints: A. E. Aldrich, Benjamin C. Austin, Arthur Baier, Alvah G. Clark, Anna M. Hagadorn, William J. Harris, Jr., Wilford E. Jost, S. R. Kitchen, Gerald Martin, Harry Prest, Martinique M. Sancier, Harry Sloan, Dr. Henry G. Smith, Kenneth D. Smith, C. Travis, Luke R. Vickus, W. W. Wiltse.

### Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers. In this class the standard is much higher and the camerist will find himself competing with some of the best pictorialists.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed, to the Guild Editor for criticism, will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links.



ART is a nation, a people. — Henry Havard.



# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

## Pinhole-Photography

So much is said and written of the value of the high-grade lens in the making of photographs, that it comes as rather a shock to the novice to be told that pictures "just as good" can be made with no lens at all. Yet, within limitation, this is true. The pinhole is, however, a misnomer, for the aperture is in reality a needle-hole and must be made with great care and accuracy.

As with most methods, this has both its advantages and disadvantages. One great advantage is that the image is virtually always in focus, and its size can be varied at will by altering the distance between the pinhole and the plate. Then, too, the image is strictly rectilinear, and the perspective in wide-angle views is less exaggerated than with a lens. It has also great depth of focus.

The disadvantages are chiefly lack of speed and inability to see the image on the ground-glass. The soft diffusion of focus obtained will be classed either as an advantage or a disadvantage, according to the preferences of the user.

The making of the pinhole is very simple, although good results depend on accuracy and painstaking. The best material in which to make the aperture is a soft metal, such as brass or copper. A good way is to procure a strip about a half inch wide and two or three inches long, in which holes of different sizes may be made.

Having this, take some blunt instrument and with it make perhaps three indentations in the metal, thus raising bosses on the reverse side. Now with a fine file or oil-stone rub down these raised points until the metal becomes very thin. Have ready new needles, sizes 8, 10 and 12, mounted in corks with the numbers written on them. Take the smallest one and, holding it at right angles with the metal, gently pierce the thinned place at one end of the strip, and without forcing the needle through withdraw it and insert on the opposite side. Working first from one side, then from the other, and always at right angles, enlarge the hole until the needle will just slip in snugly. By blowing and working gently with the needle-point, all stray filaments of metal can be removed until the hole is smooth and clean. This process must be repeated with the other holes, beginning each time with the smallest needle and working up to the number 10 for the center-aperture and the number 8 at the other end.

The edges must be smooth and the openings round. The thickness of the metal must also be less than the diameter of the hole or, as you will see, the opening will be like a tiny tunnel and prevent the light from spreading properly for wide-angle work. Having your three openings properly made, they must now be blackened. This is easily done by holding the strip of brass in the fumes of burning sulphur.

The question of mounting is one to be adapted to the type of camera used; but a simple way is to cut a piece

of heavy cardboard to fit in place of the lens-board when removed. In the center cut a hole an inch or more in diameter. Cover both sides with black paper; but in the paper that covers the front cut only a small hole, say a quarter of an inch across. Now fasten two strips of paper, one on each side of this opening, in such a way that the strip of brass will slide under them and be held firmly in place. You have now a "pinhole-lens" with three apertures, and by slipping the strip along so that no opening is in register, it serves as a "shutter," or a strip of black paper may be slipped in to close the opening.

One great beauty of pinhole-work for pictorial purposes is the soft definition. The wire-sharpness of the lens is delightfully absent, and yet there is no unpleasant fuzziness as when a lens is out of focus. The larger the needle-hole the less detail is obtained, so for broad effects select the No. 8 opening; whereas for copying or fine work the No. 12 should be chosen.

For wide-angle work the plate should be very near the pinhole, for extreme work even up to 2 or 3 inches will be practical; and if the hole has been well made, you will find even illumination throughout and less violent perspective than you would expect.

The great handicap in working with the pinhole is the inability to see the image on the ground-glass. This may be helped somewhat by substituting an opening some eighth of an inch in diameter while determining the composition. The image will be very much blurred, but the amount included in the angle can be determined, and that is the chief necessity.

When it comes to exposure, a little experimenting will probably have to be done to determine what your own particular equipment requires. In bright summer-sun, with a medium-sized aperture and a plate-distance of some 5 inches, an exposure of 10 or 15 seconds should be ample time for landscape-subjects. The plate-distance affects exposure astonishingly. A safe rule is that exposure increases as the square of the distance. That is, if at 6 inches the exposure is 10 seconds, the time at 12 inches will be not 20 seconds, but 40.

A fast plate, of course, is best for this use; for if the exposure runs up to 5 or 10 minutes, or even half an hour, something is pretty likely to move. A stray breeze may set the trees to waving their branches in protest at being expected to hold still for so long a time.

Once more, then, be sure that the opening is clean, accurately made and well blackened. Be sure your adapter is light-tight, so that no light can enter the camera save through the pinhole. Remember that your sharpness of definition depends on the size of the hole, and the size of your image on the plate-distance; the nearer the plate, the wider the angle, and the smaller the image, and *vice versa*.

A BADLY framed picture costs more than one correctly framed. — *Milton Waide.*



YOUNG AMERICA

F. A. HASSE

### Photography in Camp

No summer camp is complete without its photographer, and it is half the fun to do one's own "finishing" on the spot, rather than send films away to be done and have the long suspense of waiting to know whether or not they come out well. With the modern developing-devices all necessity of darkroom conveniences is done away with and the processes so simplified that any one can master them very quickly and easily. Either the developing-machine or the film-tank will do the work very successfully if directions are carefully followed.

Care should be taken to have the water used for solutions as pure and clean as possible, and a graduate for accurate measurements should be included among the necessities. When development is complete and the developer poured off, three or four rinse-waters should be used, as it will greatly prolong the life of the fixing-bath to have the alkaline developer removed. Having poured in the fixing-bath, be sure that the film is moved about until all air-bells are dislodged and leave it in the bath rather longer than the directions say, for thorough fixing is essential to the life of the film.

So far, all operations have been in the machine, but after fixing, when the film is removed for washing, great care must be taken not to mar the surface either by finger-marks or by hitting it in any way. The final washing, when there is no running water, is rather bothersome, but can be satisfactorily accomplished by repeated changes. If the film is a long one and hard to handle, it is best to cut it once or twice at least and place it in some large receptacle which will hold plenty of water, leave it for ten minutes and then transfer to a second dish of fresh water. Empty the first and refill. After ten minutes return the film to the first dish, empty and refill the second, keeping this up until the film has had ten 10-minute baths in fresh water each time. If one must use only one receptacle for this process, *great care* must be taken in emptying it to make sure that all the water

is out and that the films do not scratch each other during the change.

In drying, the films should be pinned by one corner to the edge of a shelf so that they hang free, neither side being in danger of contact with the wall or its neighboring film, as they go through some contortions in drying. The developing-machine must be *very* thoroughly washed to eliminate all trace of the fixing-bath before using again.

The most practical paper for camp use is the old standby — blue-print paper. With a good negative this is quite satisfactory and very simple in the operation. The great stumbling-block in making blue-prints is underexposure. The paper must be printed until a *decided* bronze is seen in the shadows. It must then be washed in several changes of water until the whites look entirely clear. If it can then be dried in the sun, so much the better.

Blue-print paper can also be used to make a record of the flowers and ferns found on one's trip. A little previous pressing between blotters is wise where a flower is bulky or likely to stain the paper, but many delicate blossoms and nearly all ferns can be used at once. Simply lay the back of your printing-frame, springs down, on the table, lay your paper on this and arrange your flowers on it. Then carefully lay the glass of the frame over that and the frame on top of all, clamping the back on firmly. Print until the background is well bronzed. When cleared you will have a beautiful and permanent record of your finds: an herbarium that will be less fragile than the usual one and a great satisfaction.

### Not So Flattering

*Ethel* — Jack saw your picture on my table and said you looked so young in it.

*Marie* — The flatterer!

*Ethel* — He thought it must have been taken a great many years ago. — *Exchange*.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U.S.A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

E. S. — In compiling the **Photo-Era Exposure-Guide** the Hurter & Driffield curve has not been considered; indeed, the guide does not aim so much to be scientifically accurate in a high degree as to establish a practical working-basis that will yield good-printing negatives in everyday work. The relative speeds of the various brands of our oldest American plates, such as Seed, Cramer and Hammer, are well known; they have been established in many ways by many experts and by the leading actinometer-manufacturers. These were taken as a basis and other plates tested in comparison with them, using a Chapman Jones Plate-Tester and also photographing comparative indoor and outdoor subjects. While the table of plate-speeds does not agree with several others, neither is there any better agreement among the others. In actual use, the listing will be found to be well within a latitude of three-fourths to two times the exposure given by the guide. The exposures given are for between-the-lens shutters; focal-plane exposures should be only one-third as long because of the greater light-efficiency of the shutter. This is being explained in a new type-line just added to the guide.

**The Autotype carbon tissues** are the only ones to our knowledge now on the American market. Bubbles forming during development or in the alum-bath when making transparencies by the single-transfer process are likely to occur when water coming from the main under high pressure is full of entangled air — even at times having a milky appearance. Water in this condition is unsuitable for mounting, as with the imprisoned air present perfect transfer is not possible. When air-bells are present to a slight degree, they may be removed by splashing water on the face of the tissue, or removed by passing the palm of the hand over it. Water containing air should be allowed to remain for an hour or more in the vessel it is drawn into before use in carbon operations. Rarely blisters form in the alum-bath when it is too strong. Use a weaker bath or allow the prints to dry before immersion in the alum-bath.

Of course the glass on which single-transfer transparencies are to be developed must have a preliminary coating of insoluble gelatine to hold the lighter halftones, which would otherwise have a tendency to wash away. Glasses may be bought ready for use or prepared in accordance with the directions given in the **ABC Guide to Autotype**.

When mounting the tissue on the glass it is advisable to cover the back of the tissue with a piece of wetted temporary support placed glazed side uppermost and squeegee upon that. If this precaution be omitted, crepe-like markings may be produced in the transparency by the pressure of the squeegee direct on the back of the tissue.

**There are several ways in which the contrast of a rather flat negative may be increased** in making an enlarged negative for carbon printing: the adoption of slow contrast plates, of a hard-working contrast developer, such as hydroquinone, or both, and the avoidance of any greater exposure than is necessary to preserve shadow detail. Any or all of these means to increase contrast may be employed in making the contact transparency or the enlarged negative, but such extreme measures will rarely be necessary. Indeed, slightly longer than normal development of either is often sufficient.

A. N. — A gasoline-vapor light can be used to **make indoor-photographs at night**, provided the candle-power is sufficient. An acetylene light, however, is preferable because it is safer, and of course electricity is best of all. At least 2,000 candle-power will be needed, and the A. & H. Twin-Arc now so widely used gives 8,000. This gives opportunity for diffusion through tissue paper or cheese-cloth, ensuring softness and absence of harshness of the cast shadows.

For **skylights** it is not at all necessary to use ground-glass or to apply a ground-glass substitute to plain glass.



THE ROAD TO HEMLOCK FOREST

SECOND PRIZE — BEGINNERS' CONTEST

A. J. WEIS

Indeed, most skylights, both top- and side-lights are more often of ordinary glass with cheese-cloth curtains on wires that may be drawn as needed to diffuse and soften the light.

J. A. T. — **There are no panchromatic films on the market**, either in the form of rolls or packs. Panchromatic plates are obtained by bathing ordinary dry-plates in a 1 to 50,000 solution of a mixture of pinachrome and pinaeyanol, viz., 3 parts pinachrome stock-solution, 2 parts pinaeyanol stock-solution, water 250 parts. The stock-solutions are made to contain 1 part of the dye in 1,000 parts of alcohol.

The bathing-solution is prepared in a measure, the plates are dusted and laid in a flat porcelain dish, which is large enough to hold nearly twice the number of plates it is desired to sensitize at one time. These are put at one

end of the dish; the dish is then tilted, and the dye-solution poured into the other (empty) end, then the dish is tilted back, so that the dye-solution sweeps over the plates in one even flow, free from air-bells. The dish is now gently rocked for three minutes, then the plates are removed and washed in a good stream of running water for at least another three minutes, and finally dried. They will remain good for several months if kept under proper conditions.

H. A. W. — **An acid has several functions in a hardening-solution for fixing-baths.** The use of a good acid-alum fixing-bath clears and hardens the film while fixing is progressing, not only obviating filling and blistering, but preventing or removing stains from the film. If the bath is rendered acid, alum removes all developer-stain and improves the color of the negative. Also if rinsing after developing is not thorough, alum in the fixing-bath, unless acidified, may cause ugly unremovable scum-markings to appear on the negative, due to alkali from the developer remaining in the film, combining with the alum and precipitating aluminum hydroxide. This is more likely to occur with ordinary than chrome alum.

In most acid-alum fixing-baths, sodium sulphite also plays a part. It keeps the fixing-solution itself from being discolored in cases where it is employed over and over again.

As to the acids, acetic works best with ordinary alum and sulphuric with chrome alum. The following is an excellent chrome alum fixing-bath for plates and films:

Add	
Strong sulphuric acid.....	2 drams
Water .....	2 ounces
to	
Sodium sulphite, anhydrous .....	1 ounce
Water .....	6 ounces
and pour the mixture into	
Hypo .....	16 ounces
Water .....	48 ounces
Finally add to the above mixture	
Chrome alum .....	1 ounce
Water .....	8 ounces



WAITING

MYRA D. SCALES

THIRD PRIZE — BEGINNERS' CONTEST

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

F. B. S. — Your two waterscapes have apparently been enlarged from too contrasty negatives. There is a lack of detail and texture in the highlights, also the prints have been enlarged to too great a degree for glossy paper, as the grain of the negative now shows prominently. The ideal negative for enlarging is one of good gradation, with plenty of shadow-detail and just enough vigor to prevent the result being flat.

A. M. H. — Your "Portrait" has much to recommend it, particularly in pose and general arrangement. It has been undertimed, however, and so lacks roundness and modeling. The chair-arm and back also are unfortunate and might have been greatly subdued by proper screening of the light so as to force it upon the face and screen the rest of the figure, particularly the hand, which is much too light.

L. R. V. — "Lunch-Time" is a composition of commendable simplicity and well spaced; but the print you have sent, an enlargement, is rather too high in key and seems to suggest a negative which is somewhat too dense in the highlights.

"Twilight" we do not care for; it lacks a center of interest and is technically defective. There should be decidedly more detail in the foreground, and the print, or more likely the negative, appears to be stained or otherwise mottled at the left.

R. C. S. — "Reflections in the River" is a very pleasing subject, and might have been more so had there been more suggestion of separation of planes in the photograph. We suspect that you used a small stop in the lens. With

sharper definition upon the large tree at the right and the other trees less sharply delineated because of their greater distance, the effect would have been far more pleasing. The introduction of human life is excellent; not too pronounced, yet distinctly noticeable.

L. W. L. — In "Long-Distance Gossip" you have a spontaneous scene full of human interest, but unfortunately it has not been well treated. The lines of the doorway are not plumb as they should be, due to the camera not being level. Also the rockers of the chair in which the girl sits are not included, conveying a sense of instability. The negative appears to have been undertimed and forced in development with consequent excessive contrast, which has no doubt been increased by redevelopment which tends to bleach the highlights.



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

*These figures must be increased up to five times if the light is inclined to be yellow or red. †Latitude 60° N. multiply by 3; 55° × 2; 52° × 2; 30° × $\frac{3}{4}$ . ‡Latitude 60° N. multiply by 2; 55° × 2; 52° × 1½; 30° × $\frac{3}{4}$ . §Latitude 60° N. multiply by 1¼; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .   Latitude 60° N. multiply by 1¼; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .	MONTH AND WEATHER																			
	JAN., Nov., DEC. †					FEB., OCT. ‡					MAR., APR., AUG., SEPT. §					MAY, JUNE, JULY				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11 A.M. to 1 P.M.	3/2	1/6	1/8	1/4	1/2	3/2	1/6	1/8	1/4	1/2	1/5	1/5	1/12	1/6	1/3	1/6	1/3	1/5	1/8	1/4
10-11 A.M. and 1-2 P.M.	2/5	1/12	1/6	1/3	2/3	2/5	1/12	1/6	1/3	2/3	1/4	1/2	1/10	1/5	1/2	1/6	1/3	1/5	1/8	1/4
9-10 A.M. and 2-3 P.M.	1*	1*	1*	1*	1*	1/6	1/8	1/4	1/2	1*	1/4	1/2	1/10	1/5	1/2	1/5	1/2	1/12	1/6	1/3
8-9 A.M. and 3-4 P.M.						1*	1*	1*	1*	3*	1/3	1/5	1/8	1/3	2/3	1/3	1/5	1/8	1/4	1/2
7-8 A.M. and 4-5 P.M.											1/2	1/10	1/5	1/2	3/4	1/2	1/10	1/5	1/3	2/3
6-7 A.M. and 5-7 P.M.											1/5	1/8	1/2	3/4	1*	1/5	1/8	1/4	1/2	3/4
5-6 A.M. and 6-7 P.M.																1/10	1/5	1/3	2/3	1 1/2*

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks,** ravines, glades and under the trees. **Wood-interiors** not open to the sky. **Average indoor-portraits** in a well-lighted room, light surroundings.

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number in the third column

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.	U. S. 1	F/4	× 1/4
	U. S. 2	F/5.6	× 1/2
	U. S. 2.4	F/6.3	× 5/8
	U. S. 3	F/7	× 3/4
	U. S. 8	F/11	× 2
	U. S. 16	F/16	× 4
	U. S. 32	F/22	× 8
	U. S. 64	F/32	× 16

## Example

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 P.M., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply  $1/16 \times 4 = 1/4$ . Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class.  $1/16 \times 1/2 = 1/32$ . Hence, the exposure will be 1/32 second.

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.

Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 128, Wy. 250, Wa.

Anso Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.

Anso Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid  
Seed Color-Value

Class 1, P. E. 111, Wy. 180, Wa.

American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter

Imperial Ortho. Special Sensitive  
Kodak N. C. Film

Kodoid  
Lumière Film and Blue Label  
Marion P. S.

Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.

Cramer Bammer X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.  
Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 84, Wy. 160, Wa.

Cramer Anchor

Lumière Ortho. A

Lumière Ortho. B

Class 2, P. E. 78, Wy. 120, Wa.

Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.

Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Hammer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.

Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.

Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Halftone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.

Lumière Autochrome



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## The Origin of Photo-Era

A NEW subscriber who lives in New Mexico writes, explaining the origin of the name "PHOTO-ERA": "I admire the originality of the name of your admirable magazine. At first it was not clear in my mind just how the name was formed, but I now see that it was accomplished by compounding two photographic words in a conventional way by using the first part of the word 'photographic' and the last part of the word 'camera.' Good work!"

## A Frequent Disappointment

Two young pictorialists, on their way to the park, entered the subway-station. Nearing the window, where sat a young goddess of classic countenance, Jack stopped short and said to his companion: "Gee, what a peach!" As each pushed his nickel towards the waiting ivory hand, he got a glimpse of the perfect features of the maid. Turning back for another look, then quickly catching up with his friend, George exclaimed: "It's all off, Jack!" Jack turned about and, looking towards the maiden busily taking fares, beheld an ugly profile with large, bulbous nose, protruding upper lip and receding chin—features which, viewed at full face, appeared quite regular, and with the really beautiful eyes and the white teeth combined to produce a most attractive impression. A wholly satisfying profile, in man or woman, is extremely rare.

## Correcting Convergent Distortion

In a recent issue of *The British Journal of Photography*, Mr. C. Welborne Piper describes a new copying-camera fitted with mechanical adjustments for the correction of convergent distortion produced when photographing a building with a tilted camera, and refers briefly to his own method of rectifying this fault worked out in 1898.

This reminds me of a somewhat similar experience, in 1889, when I visited Bayreuth to attend a music-festival. After a call at Wagner's villa Wahnfried, and strolling down the avenue of low trees, I retraced my steps with the intention to make a picture of the famous abode. The overhanging branches of the *Allée* obscured the upper part of the buildings so that, in order to get a clear view, I was obliged to approach within a few feet of the rail-fence, which enclosed the estate. My equipment was a 4 x 5 box-camera, but without adjustments to rectify tilting. Nevertheless, I inclined the camera upwards, knowing that the resultant picture would show considerable convergence. It was to be only a personal memento.

Sometime afterwards, as I viewed the mounted print of "Wahnfried," I regretted the vertical distortion, for otherwise the picture was very satisfactory. The idea then occurred to me to copy the print in such a way as to correct the convergence. I accomplished my object by first making an enlargement. This I stood up, reversed, tilting it backward considerably, ready for copying with a 5 x 7 rigid plate-camera. Viewing the image on the ground-glass, I proceeded to adjust the enlargement—bringing the top (the actual bottom) gradually forward, until the sides of the building appeared parallel, using a medium stop of a 10-inch Euryscope lens through-

out. Then I secured the enlargement, inserted the smallest stop, exposed my plate and the result was a negative with the converging lines made plumb. I suppose that the same result could have been attained by using a camera provided with a liberal backward swing; or, in making the enlargement, by adjusting the original negative in a slanting position.

## A Smart Retoucher

THE Editor was dictating his—tieth dunning-letter for the day when an energetic-looking individual entered.

"Do you happen to know of a position for a good retoucher?" he asked.

"Possibly. Excuse me," continued the Editor, "but you are not one of those billiard-ball retouchers?"

"What do you mean?" questioned the applicant with evident suspicion.

"You see, I have an inquiry for a *real* retoucher—one who understands anatomy. For instance, most retouchers obliterate the character in the face. In the case of women, they carefully efface the supra-sternal notch and the clavicles."

"You can't phase me with any talk like that!" came the ready reply. "The leading physician in my town was so pleased that I avoided the facial muscles in his negative, when I retouched it, that he made me a present of five dollars."

"Well, well!" exclaimed the Editor. "May I ask what those muscles were?"

"Why, certainly—the *levator labii superioris alaeque nasi*—near the nose, you know—and the—"

"Thank you; that's enough. You'll do!" exclaimed the Editor, holding up both hands.

## The Keeping-Quality of Plates

IN discussing with me, recently, the keeping-quality of dryplates, Prof. Louis Derr, of the Massachusetts Institute of Technology, expressed great satisfaction with reference to a box of panchromatic plates which he had purchased in London over a year and a half ago. He used a few plates at the time and put away the rest of the box on a shelf in his darkroom—an inside apartment of one of the Technology buildings. He recently came across this box, and, desiring to use a few panchromatic plates, was curious to see if the contents was still in good condition. He found that, in every way, the remaining plates were virtually as good as new. Not even a trace of the customary "band of mourning" around the edges was visible. This speaks well for a plate whose keeping-qualities are supposed to be limited to about six months. Of course, if this or any other plate is kept in a place where it would be affected by weather-conditions, the keeping-quality might not last even six months.

## Conclusive Evidence

*Street*—"What career do you think is the better for me to choose? That of photographer or lawyer?"

*Ryan*—"I should say a lawyer."

*Street*—"Have you heard me argue a case in court?"

*Ryan*—"No, but I have seen some of your portraits."—*Exchange*.

# OUR ILLUSTRATIONS

WILFRED A. FRENCH

THE vigorous and broadly-handled marine — see front-cover and page 80 — is what one may expect from the accomplished pictorialist, Karl Struss. Original, pictorial design, spontaneous expression and artistic use of his technical medium are other characteristics of his delightful artistry, as exemplified by the five admirable pictures that adorn this issue. Data: "Sunlight on the Water, Arverne," front-cover and page 80 — August, 5 P.M.; against bright sunlight;  $\frac{1}{25}$  second; 4 x 5 Graflex camera; Struss 12-inch Pictorial lens; stop, F/6; Standard Ortho; Rodinal 1 to 50; 65 degrees, 16 minutes; 4 x 5 direct platinum print.

"The Front Stoop," page 77 — May, 10 A.M.; bright sunlight;  $\frac{1}{15}$  second; rest the same.

"Chatham Square, New York," page 78 — April, 5 P.M.; clear sunlight;  $\frac{1}{15}$  second; rest the same.

"Lower New York, Twilight," page 79 — December, 5 P.M.; twilight; 1 second; rest the same.

This month's frontispiece, following the lead of the front-cover illustration, is a seasonable marine-motive, which, indeed, dominates this, our midsummer issue. The broad, almost limitless expanse of water suggests freedom in a manifold sense. The author, H. C. Mann, is a believer in direct, realistic expression. His sound and virile technique enables him to produce striking and attractive pictorial effects, albeit he is inclined to emphasize too strongly his deepest shadows — rather the result of temperament than of technical inability, for, printed on a different medium than a glossy surface for reproduction, his pictures appear to better advantage. Data: 8 x 10 Century camera; 12-inch No. 6 Dagor; Ingento 3-times color-screen; 8 x 10 Hammer Non-Hal. Ortho; pyro.

In a highly practical way, Fred Sutter demonstrates the oft-repeated statement, in these pages, that a wealth of pictorial material may often be found close to one's own domicile, if he but knows it. Substitute for the word "Glück" (happiness), "picture-motives," and the poem by Göthe may be quoted here quite aptly:

"Willst Du immer weiter schweifen?  
Sieh, das Gute liegt so nah!  
Lerne nur das Glück ergreifen.  
Denn das Glück ist immer da."

In his modest way, Mr. Sutter disclaims any merit for his efforts to make a good picture out of the eight different opportunities. I beg to differ with him on this point. But the reader may find it interesting to analyze each of the pictures himself, and, when done, he will undoubtedly be willing to concede that Mr. Sutter has been very successful with what ordinarily might be considered unpromising material. Moreover — and what may be regarded of greater importance — a valuable lesson is taught how to treat virtually the same subject at various seasons of the year, and also during different conditions of weather and light. Data:

"Morning Glory," page 61 — Sept. 21, 1914; 7 A.M.; bright sun; 5 seconds; Darlot R. R. lens; stop, F/32; Imperial Non-Filter.

"January Thaw," page 62 — Feb. 15, 1915; 10 A.M.; raining lightly, figure posed; 5 seconds; same lens; stop, F/32; Barnett Red Diamond.

"Fall," page 62 — Oct. 6, 1914; 10 A.M.; light rain falling, figure in motion during exposure; same lens; stop, F/32; Imperial Non-Filter.

"5 Below," page 63 — Jan. 26, 1915; 8 P.M.; 5 minutes; same lens; stop, F/11; Seed 30.

"After the Shower," page 63 — June 2, 1915; 12.20 P.M.; raining; 6 seconds; same lens; stop, F/32; Imperial Non-Filter.

"November," page 63 — Oct. 29, 1914; raining; 7 seconds; same lens; stop, F/32; Imperial Non-Filter.

"The Fog," page 63 — Oct. 19, 1914; 8 A.M.; foggy, figure in motion; 7 seconds; same lens; stop, F/32; Imperial Non-Filter.

"October Afternoon," page 63 — Oct. 22, 1914; 1.30 P.M.; bright sun;  $\frac{1}{25}$  second; same lens; stop, F/16; Seed 30.

What to my mind is a very original and satisfactory composition is "North River, New York," page 64. The mast of the lighter seems to aid the rising effect of the lofty Woolworth Building. Happily, it deviates from the perpendicular — sufficiently and in the right direction — to obviate a tendency towards stiffness in the design. The upward gradation in the lighting-scheme has been managed very adroitly and adds much to the general artistic effect. I recall nothing in Pennell's etchings of New York that pleased me more than this camera-memento by Mr. Emerick. Data: Hazy day; Mentor Reflex  $6\frac{1}{2}$  x 9 C. M.; No. 3, 5-inch Zeiss Double Protar; 200 feet at F/9; Premo Film-Pack; pyro, Watkins method; enlargement on P. M. C. No. 2; M. Q.

Mr. Ludlum's suggestions, pages 67-69, how to utilize the canoe in camera-exploration, are self-explanatory. The most pleasing of the series is, perhaps, the "Canoe-Landing" — page 69 — picturesque and restful. No data.

To continue the nautical interest of this number, with its suggestion of refreshing coolness and change of scene, the next topic in order is the paper by associate-editor Phil M. Riley, on the camera-possibilities by means of coastwise steamers. Mr. Riley's personal experience in visiting the various sections of the United States, by land and by sea, entitles him to speak with authority on the numerous opportunities that present themselves on the way. His illustrations, pages 70, 72, 73 and 74, suggest also how the pictorial side of coastwise camera-subjects may be developed from as well aboard the steamers on which the camerist is a passenger. Data for all pictures: August, 5 to 6 P.M. and 7 to 8.30 A.M.; hazy sunshine; 4 x 5 Eastman plate-camera;  $6\frac{1}{2}$ -inch B. & L. R. R. lens; stop, F/8;  $\frac{1}{25}$  to  $\frac{1}{100}$  second, according to character of subject; Premo Film-Pack; pyro in tank, 20 minutes; 8 x 10 Monox enlargements made with Ingento Enlarging-Lantern; developed with Celeritas.

How closely the camera, in the hands of an artist, may rival the brush of the painter — and without an effort to imitate the result — is shown by the masterly performance of Spencer Kellogg, Jr., page 76. The freedom and breadth evident in the management of the masses of light and shade, and in the "rhythm in nature," as indicated by the swaying tree and the fleeting clouds, can emanate only from a close student of nature and an accomplished artist. No data.

Most pictures of still-life, in which the Dutch painters excelled — up to the point where the pictorial design became intricate and involved by reason of multiplicity of objects — whether executed by the brush or the camera — seem to lack spontaneity and significance. They possess, so to speak, a made-to-order appearance. Some-





CHILD-STUDY

EVELYN HINCKLEY

times, when they suggest a peep into the kitchen, they acquire an air of naturalness, and a codfish serving as a foil to a brass kettle produces an effect of realism that gives the *raison d'être* to the still-life. Mr. Horsman, a professional home-portrait photographer, finds diversion by making still-life studies, and, possessing a thoroughly artistic temperament combined with rare technical ability, he has produced a number of studies that are strikingly successful in conception and treatment. One of the best examples of this class of work from his portfolio is presented on page 81. Simplicity, breadth and force are the basic excellences of this notable composition. Data: March, about 5 P.M.; Smith Semi-Achromatic Doublet; 14-inch focus; stop, F/5; 8 x 10 Cramer Crown; pyro; direct Cyko print.

In the management of chiaroscuro, William Ludlum, Jr., has acquired a degree of cleverness possessed by few of our younger pictorialists. He knows, too, how to make pictures of this sort interesting by shadow-detail, and thereby to relieve large white masses of possible monotony. In this commendable effort, however, care should be exercised lest it be overdone, otherwise the pictorial design may become involved and lose in directness and force. There appears to be a tendency towards excessive shadow-adornment in Mr. Ludlum's interesting picture of a sun-lit sanctuary, page 82, which appears to excel primarily as a technical performance. No data.

One is sure to be attracted to Mr. Seavey's picture, page 83, for the novelty and the humor there is in it. There is a field for this class of endeavor that has been developed successfully by our English friends, and it is curious that, with the immense fund of gaiety and wit that exists in this country, so little in that direction has been done by American camerists. Who will emulate the example of Mr. Seavey? Data: July; sun-lit interior; R. R. lens; 6-inch focus; 25 seconds; 5 x 7 Cramer Crown; Rodinal, very dilute; direct W. & C. Platino-type print.

The photo-botanist has doubtless been very busy this season, although the contributions to our pages have been few of late. C. L. Powers' excellent study of a common wild-flower was made nearly a year ago and appears on

page 84, in August, when thoroughwort is found plentifully, almost anywhere from New England to Minnesota. Data: Professional skylight; Darlot Wide-Angle lens; medium stop; Standard Imperial; pyro.

The marine, by A. Neumeyer, page 85, is a view of the Baltic, taken before the present European war. There is something mysterious and fascinating in its somber beauty; and if there be a secret it would tell, how would we receive it? Data: August, 5 P.M.; dark, approaching storm; Euryplan lens; Series II; 8¼-inch focus; stop, F/6.8; Perutz Antihalo plate; Tama gaslight paper, 5 x 7 print.

### The Photo-Era Monthly Competition

By a strange coincidence, the best three pictures in the "Street-Scenes" competition represent scenes in which the pointed or the Roman arch figures prominently. Curiously, too, two of these successful pictures are Oriental in character, only one being American, and that one a weak imitation of the Arch of Titus, in Rome, Italy. However, though a little disappointing to the jury, this peculiar combination of circumstances is not likely to occur again in these competitions.

The first-prize picture, page 90, is by A. W. Cutting, who, by receiving the same honor three times, according to the rules, can no longer participate in these contests. Mr. Cutting's picture is typical of the picturesque life in a Saracenic city. The Moorish arch forms a splendid setting to the animated scene, which was taken at a propitious moment. Data: April, 10 A.M.; bright sun; 3A Kodak (3¼ x 5½); regular R. R. lens; F/8 stop; Eastman N. C. film; hydro-metol; 6½ x 8½ contact Platino-type print from enlarged negative of original Solio print (3¼ x 5½).

Though apparently an entrance to a religious edifice, the scene in the city of Jerusalem pictured by Mr. Titus, on page 91, is in reality a street, strange as it may seem. We are looking at and through David's Gate, which is one of the entrances to the old walled city. The white-covered figure, in the foreground, is a helpful accent in the

(Continued on page 110)

# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions are solicited for publication

## The Camera in Scientific Research

AN exploring-expedition made up of scientists and sportsmen left New York, June 27, on the schooner-yacht, *Kitty A*—Henry R. Amory, owner and captain—for the west coast of Africa and Canary Islands in the interest of the department of comparative zoölogy of the Peabody Museum at Harvard. The chief object of the expedition is to discover the remaining descendants of the Guanches, an ancient tribe that inhabited the Canary Islands long before the Moor or the Spaniard. They were a white race, but unlike any now living in Europe. If not remnants of the tribe, at least traces of their history and customs are expected to be found.

Charles Wellington Furlong, F.R.G.S., the noted explorer, artist, writer and lecturer, will be the ethnologist of the party. He is a Cornell graduate and has been very successful in scientific exploration. It was he who, in 1904, discovered in the harbor of Tripoli the wreck of the frigate *Philadelphia*, which was sunk by Decatur a hundred years before. He led the first successful expedition into Terra del Fuego and Patagonia several years ago. Mr. Furlong is also an expert photographer and will personally manage the photographic department of the expedition, which will include efforts to obtain a collection of rare birds. A number of cameras, and a large quantity of films, particularly prepared, will be taken along. It is hoped that the party will not encounter pirates, which are now quite active on the Moroccan coast. Sail-power will be relied on chiefly, and an auxiliary engine will be in emergencies.

In a letter just received, Mr. Furlong writes: "You may be interested to know that I am taking as a camera-equipment a 3A Kodak, fitted with a Junior Multispeed Shutter with a Leukar F/6.8, focus 6½ inches, made by the Emil Busch Optical Company. I have had a cross-line spring-finder put on the outside of the case. This is particularly useful when taking animals rushing towards one, as one can see to jump to one side when the animal is on one. This was particularly useful to me in taking Texas longhorn steers on the range in Montana and at the round-up at Pendleton, Ore.

"My second or auxiliary camera is a 1A Kodak (Pocket Automatic, Folding), one of the most useful types of camera for general snapshot-work, because of the fixed focus. I had great difficulty in securing this, as I understand the Eastman people have taken them off the market—why, I cannot understand. This, I prefer for street-work and wilderness, where quick action is necessary, besides the camera is less obvious than a larger one.

"One method when taking people in the field who are primitives and superstitious of a camera is to turn my camera sideways towards them, but apparently look ahead until I look in my finder and watch them only in it.

"Both these types of cameras are the most practical for carrying on the horn of one's saddle, as they can be easily lashed with the saddle-strings; but in the future I intend having a special saddle-arrangement. Where expeditions are by horse, plates or a square box-camera are not practical. Plates break in the saddle and a box-camera is too bulky to carry in the saddle; you can only strap it on the back, where it jolts too much in riding.

"With films you also always have a magazine-charge

in your gun, so to speak, which is very necessary in unexpected situations or in a country you are a stranger in.

"I put my films up in cans I have made about eight inches in diameter, twelve inches high and cylindrical with a broad four-inch screw-top of tin. Of course these dimensions are not arbitrary; any one can plan his own cans. The films are put into little tin tubes in their oiled paper and tin-foil and then the joint of the covers sealed with surgeon's plaster. Then the films in the tubes are placed in the big can. These cans are kept always screwed down and are water-tight.

"From my experience in the tropics the main thing to save films is this method and never letting films stay long in the camera. Take a lot of snaps or otherwise and put the film back in the little tube, seal and can. Keep the camera in the case, out of the sun, and when not in use wrap in dry cloth, a coat, etc., or put in a trunk, saddle-bag or pack."

## The Aerial Graphoscope

KEENNESS of eyesight and persistence of vision to a high degree are among the necessary qualifications of army signalers. An ingenious device for testing these qualities of human vision has been devised by Mr. E. Stuart Bruce, vice-president of the Aerial League of the British Empire. He calls his invention the aerial graphoscope, the purpose of which is to produce a lantern-picture in space without a screen. On a dark surface in front of the lantern is placed a narrow white lath of wood, capable of being revolved by any convenient mechanism. Upon this lath is focused a strip of the lantern-picture, and then, on the lath being revolved rapidly, the whole picture comes into view as a result of the observer's persistence of vision. The picture thus presents the effect of standing out in luminous relief and shows up quite vividly even when the room is normally lighted. Thus is offered a ready means to measure the time during which an image remains on the retina. Persistence of vision varies considerably among different persons and even in the same individual according to his degree of fatigue, thus varying the necessary speed at which the lath must revolve in order to produce the effect of a complete picture.

## Ponies for Child-Portraiture

YANKEE ingenuity knows no end; it crops out in photography as in all lines of business. If business will not come into the studio, the photographer must go to the home after it. Parents will often have portraits made of their children when they would not of themselves, for children change more in appearance from year to year than do persons of middle-age, and hence the original and ingenious idea recently put into practice in the suburbs of Boston.

Six splendid ponies are being used in different sections to attract the attention of children, every one of whom wants to ride. When mounted, each makes an attractive picture which usually appeals to the loving mother or father, so that the offer of a photograph at a moderate price finds a willing customer. Each pony-team averages from fifty to seventy-five negatives a day, which is sufficiently profitable to commend the idea as a splendid summer-resort possibility.



## \$15 For Best Suffrage Picture

ANY active worker with plenty of time on his hands, eager to obtain \$15 for a photograph deemed the best picture of any event connected with Woman's Suffrage, which has been offered by the Mass. Woman's Suffrage Association, 585 Boylston Street, Boston, U.S.A., should get into line. There will also be so-called consolation-prizes of \$1.00 each for ten pictures next in merit. These prizes will be awarded September 1, 1915. The contest is open to everybody, regardless of his sentiments on the subject.

## The Camera in Fiction

AN admirable photographic story will be found in the *Saturday Evening Post* for June 19 — "Her Negatives," by R. W. Child. The author appears to be quite familiar with the life in a photographer's studio. He may have had some practical experience in that line, himself, though he talks in a somewhat sarcastic way in reference to the management of the sitter. This is illustrated in the scene where the beautiful heroine enters the studio: "Take my picture, please," said she. "Father wants a picture of me." "I should think he would!" stammered Bodbank's Phirst Photographer, and he sat her in a fancy chair, hauled out a rug made of imitation grass for her feet, and carefully polished the two steel tips of the headrest with his palm before he'd let them touch the thick rolls of hair behind her pink ears.

"I rowed across the river," said she, leaning back comfortable against the headrest, and folding her hands. "And that's why I opened my waist at the neck. I ought to fix myself up, hadn't I?"

Talk about the way Fate plays tricks when nobody knows it! She played one, then, when she put that question to Everett M.!

Because the man who advertised platinum finish by the dozen right then and there had a moment of what they call inspiration.

Up to that minute he'd never stopped folks from fixing for a picture. He had a celluloid comb and a rosewood brush that had probably held at one time or another the hair of belles, bartenders, babies, bankers, pet Angoras and French bulldogs. He used to encourage their use to get the cowlicks on people to lie flat and prevent, as he said, the "subject from looking fuzzy." And then he'd putter around in front of people, advancing on them and taking a wrinkle out of a dress here or pulling down a pants-leg there, and then retreating with one brown eye half closed, the way a man looks when he's trying to match house paint. All the time he was making notes in his mind of the "little blemishes" he'd have to "etch out on the plate," and as he'd work he'd scowl a bit, and would murmur, "There, there!" the way you say, "So boss, so boss!" to a frightened cow.

The result was the same as all photographers get. Anybody who sat with a round circle of black cardboard behind his head would begin to feel that his face was a mechanical device, something like the switchboard of a telephone company, and that expressions could be "plugged in" on it. Then Max would say: "Raise that left shoulder a little. I want to avoid the sloping, bottle effect." From feeling like a fool, the one who was having a sitting would go to looking like one; and that's what accounts for the likenesses of loved ones you see on parlor mantels.

True, Max may have gone a little too far in coaching his sitter; but on the whole he is a fair example of the average studio-operator. Then, too, the story has a practical value to the portrait-photographer in that it shows how a discriminating public regards the craft as a class.

## Chance for Poet-Photographers

THE sum of \$250 in gold is offered by Hon. James H. Preston, mayor of Baltimore, for the best original poem on "Baltimore," suitable for musical setting. Later a similar prize will also be offered for the best musical setting of the prize-winning poem.

The judges of the competition are Virginia Woodward Cloud, author; John C. French, professor of English at Johns Hopkins; Robert M. Gay, professor of English at Goucher College; Wilbur F. Smith, president of Baltimore City College, and Edward Lucas White, contributing editor to "The Nation." The following rules will govern this contest:

1. The poem must be distinctively Baltimorean in sentiment and suitable for musical setting.
2. The poem must be typewritten in black and on one side of the paper only.
3. The poem must not exceed four stanzas. The stanzas must not contain less than four nor more than eight lines. In addition to these stanzas a refrain will be permitted.
4. The writer must not sign his or her name to the manuscript, but must use a private mark on the same. The manuscript must be accompanied by a small envelope, containing this private mark, and the full name and address of the writer. These envelopes will not be opened until the judges have made their decision. In case an unsuccessful competitor should not wish to be known to the judges, he should write on the sealed envelope containing his name, the direction: "To be destroyed unopened, together with my manuscript, in case of failure to win the prize."
5. The judges reserve the right to reject all poems submitted, if, in their opinion, none has sufficient worth to merit an award.
6. No manuscript mailed after August 7 will be considered.
7. No poem shall be submitted of which any part has appeared in print.
8. The successful poem is to be the property of the city.
9. Manuscripts will not be returned except upon written request of the writer, accompanied by sufficient postage.
10. Manuscripts containing evidence of not being entirely original will disqualify the writer from the competition.
11. All manuscripts must be addressed to

THE MUNICIPAL SONG CONTEST,

CARE OF FREDERICK R. HUBER,

PEABODY INSTITUTE, BALTIMORE, MD.

## A Popular Pacific Coast Supply-House

IN reply to a small "Ad" inserted in PHOTO-ERA for June and July as to whom our subscribers on the Pacific Coast would designate as a popular dealer, the choice has fallen upon Howland & Dewey Co., of Los Angeles, Cal. The question was submitted to this enterprising firm, which was not slow to benefit by this expression of popularity, and hence this firm's "Ad" will appear as the latest addition to PHOTO-ERA's Blue-List.

Visitors to the Pacific Coast, who will naturally visit the beautiful and interesting city of Los Angeles, will find it to their interest to renew their supply of films and plates and other photographic material from the large, varied and fresh stock carried by the Howland & Dewey Co. Their business-methods will be found to be exemplary in every way.



L. A. DOZER, PRESIDENT, P. A. OF A.

### The New President of the P. A. of A.

THE Photographers' Association of America deserves to be congratulated in having elected, at the Indianapolis convention, L. A. Dozer, of Bucyrus, Ohio, as its executive head. When, in 1908, George Barrows was made president of the Association after having served three terms as treasurer, Mr. Dozer was called to fill this responsible position, which he did most conscientiously until 1915. At the Atlanta convention, last year, he was mentioned prominently as candidate for president, but he declined the honor modestly and firmly, believing that first vice-president W. H. Towles, being in line, should have that honor. He was, however, elected first vice-president, and now is president-elect, assuming the duties of the office January 1, 1916, together with the other members of the new board.

Mr. Dozer enjoys the respect and confidence not only of his patrons in his native city, as a portrait-photographer, but of every member of the P. A. of A., which body he has served as treasurer for a period of seven years. His character as an official and as a business-man is without a blemish. Mr. Dozer has never been identified with any questionable or unsatisfactory business-dealings, but has remained just a regular, honest and capable portrait-photographer.

His entrance into this, the highest executive position in the P. A. of A., is accompanied by the sincere good wishes of every member of the Association and of PHOTO-ERA.

### Two New Goerz Booklets

THESE are entitled "Goerz Lenses" and "Goerz Cameras," and contain, in addition to descriptive matter and prices of this well-known line of goods, much valuable information of a general character. As they are of

vest-pocket size, they may be carried for ready reference if desirable. Camerists contemplating an addition to their photographic equipment will do well to apply for these booklets at once, addressing the C. P. Goerz American Optical Company, 323½ East 34th Street, New York City.

### Prices of Amateur Goods Unchanged

APROPOS of the inevitable advance in dry-plates, chemicals and writing-papers—for obvious reasons—we are authorized to state that the retail-prices of domestic papers and amateur photo-specialties remain unchanged. The American manufacturers are not disposed to take unfair advantage of existing conditions; but cannot be censured for increasing the prices when the imported raw material is hard to get, or cannot be procured at all.

### Features of the N. E. Convention

PRESIDENT J. P. HALEY, the busiest photographer in the state of Connecticut, will give a demonstration, "How to make photographs picturesque and artistic—not by what you show, but by what you leave out," at the N. E. convention, in Copley Hall.

The illustrated lecture prepared by Dr. Thomas W. Smillie, of the Smithsonian Institute, at Washington, D. C., and entitled, "The Progress of Photography from Its Inception," delivered at the Indianapolis convention by Charles L. Lewis, of Toledo, will be given by W. H. Towles, president of the P. A. of A., at the Boston convention, Tuesday evening, August 10.

Anthony J. Philpott, art-critic of the *Boston Daily Globe*, will give his illustrated lecture, "Newspaper-Photography," on the evening of August 11, and will act as critic of the prints in the pictorial exhibit.

Several of the past presidents, including John Garo, will also be heard from. The various events promise to attract a large attendance. A number of the greater lights in photography are expected to be present from New York and elsewhere.

### Trophy at N. E. Convention

ONE of the attractive features of the New England Photographers' Convention, August 10, 11 and 12, in Copley Hall, Boston, Mass., will be a large copper on silver trophy cup of artistic design, offered by the Wollensak Optical Company, of Rochester, N. Y., for the best three portraits from negatives made with the aid of Wollensak lenses, exhibited by a member of the association.



The selection of the jury, and all other arrangements regarding this trophy, will be under the supervision of the Wollensak firm. All exhibits for this competition must be sent, all charges prepaid, to Copley Hall, Boston, marked "Wollensak Optical Co., care of Geo. H. Hastings, Sec'y," not later than August 6, 1915.



## LONDON LETTER

CARINE AND WILL A. CADBY

THE exhibition of the members of the Scottish Federation at the gallery of the R. P. S. is just over. The titles in the catalog had a Scotch flavor—"The Land of the Thistle," "A Highland Pastoral," "Linnithgow Place," etc.—which seems rather absent in the exhibition itself. It is captious to carp at this for, after all, no people are more cosmopolitan than the Scotch, and the impression we carried away was that the southern places of Europe appeal more to Scottish imaginations than their own more rugged scenery. Even the two best-known interpreters of Scottish subjects had gone to France for inspiration. Mr. Dan Dunlop and Mr. James McKissack have both three exhibits, and strangely enough one of each is taken at Honfleur. There were three of Mr. Hector Murchison's big portraits, which prevented our leaving the exhibition as soon as we had intended. There is something arresting and stimulating in this photographer's work, and these were studies only one of us had seen before. His sitters were G. K. Chesterton, Lewis Hind and Sir Henry Newbolt. The latter's portrait is really a fine achievement even for Mr. Murchison, who has made such a reputation for himself in this work. It is a clever picture and so wholly satisfying as a composition, as well as having the added merit of being a striking likeness of the man. There are two things in which Mr. Murchison seems to excel: in placing his heads and in suggesting the personality of the sitter.

All Mr. Murchison's latest portraits have plain backgrounds, giving the effect of charcoal-sketches. It seems, when taking the photograph, that he uses any background that happens to be there and gets rid of it afterwards on the negative or print. As he prints in oil and kindred processes, this is not a difficult matter and the result, as a rule, is certainly satisfactory.

There were three small exhibits by Mr. Craig Anman. Two of them have stuck in our memory: bright, sunshiny effects of a Spanish woman called "Gitana, Grenada," and "Gitana Returning from Market." As a matter of fact, they are duplicates as subjects—lighting, etc., are identical, the only difference being when Gitana returns from market she has either bought or sold (we forget which) the things she carried in her hands. These brilliantly sunshiny effects, printed in the beautiful photogravure process, were very interesting to us and gave great matter for discussion as we walked around Russell Square. They might puzzle the lay mind; but to photographers the whole situation was in a nutshell. Why had Mr. Craig Anman not photographed such a model as Gitana to better advantage than just to let her stand and look at the camera? Why had he not attempted to show some of the grace of movement or pose of a Spanish woman, or more unconsciousness in his presentation of her? Photographers, however, know all about it. It was the snare of color. Mr. Anman saw Gitana in all her brilliant-hued raiment in that seductive Spanish sunshine. He saw her warm complexion and dark hair and the yellow and reds of her costume with the black, which in Spain seems only to make the other colors more vivid. Naturally, he felt obliged to photograph her, and not being a snapshotter, he asked her to stand for him and probably used a good many plates and films on her. And it was well that he did, for whoever else misses the color in these charming prints, it will not be Mr. Anman himself.

This is, of course, all surmise, for we have not seen

Mr. Anman for some years, but we photographers know well how some of the color that has charmed us and caught our eye, does somehow get through the lens and printing-process and greets us again from the print. To others it will be just a black and white rendering; but to us there is the suggestion of the color we originally saw when we made the exposure. May this, perhaps, account for some of our prejudice in favor of our own work and why we often view it with such leniency? We may not be as outspoken as our cousins across the water; but if they think that our reserve denotes any undue modesty as to its merits in our own estimation, they will be very mistaken! Our deprecation usually veils a very keen appreciation and we view our individual efforts through just as rosy spectacles as do the Americans.

One, at least, of the German submarine commanders is a photographer, and we gather that he used his camera to snapshot the crew of the Norwegian barque *Superb* which he torpedoed off the Fastnet. The crew was lined up on the deck of the submarine and solemnly photographed. A fresh terror is added to the long list which confronts those who go down to the sea in ships.

The war has had many unexpected results on trade and industry in general. Photography, of course, has suffered in many ways, some of which have already been referred to in these notes. Now we hear that professional photography is laboring acutely under a very severe shortage of skilled hands. Operators and dark-room-workers cannot be had for love or money. Of course, a great number have enlisted, and this has occurred just when photographers have a vastly increased amount of work on hand. Wives, mothers, sweethearts, children and friends—all wish to have a portrait of the relative who is going to the front, and as that relative can now be counted in millions, the demand for photographs has become enormous. The consequence is that many professionals are working very long hours, and often without assistance, to get their orders off.

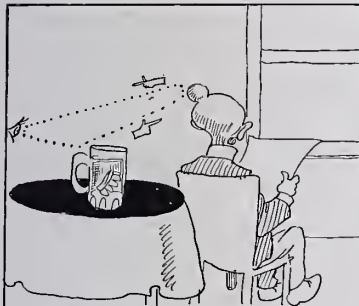
The Royal Photographic Society's prospectus of the forthcoming exhibition is now published. The sixtieth annual show will be held at the gallery of the Royal Society of British Artists (Suffolk Street, S. W.) from August 23 to October 2. There are three sections—the first is devoted to pictorial work, the second to color-transparencies and the third to scientific and technical exhibits, color-prints, natural history photographs and lantern and stereoscopic slides. Mr. Alvin Coburn is to be one of the judges of the pictorial section. Exhibits may be delivered at the Society's house, 35 Russell Square, W. C., up to 6 P.M. July 31.

Under the title of "A Summer Friendship," Mrs. Dorothy Muir has written a charming story which tells in the form of letters the adventures of a party of attractive people caravanning in Scotland. As one reviewer says, "Mrs. Muir has worked in so much of sweet human nature, so much graphic description of country-scenes in Scotland, that her book is a delightfully fresh one of its kind." But it is primarily the illustrations that will interest our readers, for they are from very delightful photographs by Mr. Ward Muir, whose name and work are not unknown to readers of this magazine. The reproductions have been treated carefully and artistically, the original mount being reproduced as well as the print. Mr. Muir has ably seconded his wife in bringing the Scotch atmosphere before the reader, for many of the pictures are filled with the spirit of the moors, and the human element, as exemplified by the busy, cozy little home on wheels, placed in the midst of so much grandeur of scene, is just the touch needed to complete the effect. The only fault to be found is that, in some instances, the long narrow views have been too much reduced in size owing to the scheme of placing them across the page instead of along it.

# The Cartoonist's Photo-Print-Criticism

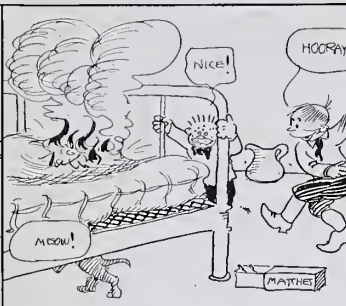
For an Unbiased Report on Your Photographic Efforts  
Send in Your Prints

W. R. BRADFORD



NO. 162  
"GRANDFATHER'S FALSE TEETH"  
BY WILFRED A. FRENCH, BOSTON, MASS.

THIS IS A COMPOSITIONAL CHOP SUEY. YOUR ATTEMPT TO ACCENTUATE THE FALSE TEETH BY BLACKENING IN THE TABLE TOP IS A FAILURE! THE EYE IS AWESOMELY AND MORBIDLY ENTICED TO THE WEN ON GRANDFATHER'S HEAD. YOU COULD MUCH IMPROVE THE COMPOSITION BY UNSCREWING THE WEN AND LAYING IT, KINDA CARELESS, LIKE, ALONGSIDE THE TEETH, THEREBY POOLING YOUR MAIN OBJECTS OF INTEREST. AS IT IS, THE EYE GYROSCOPES FROM THE TEETH TO THE WEN AND FROM THE WEN TO THE TEETH AND NEVER GETS OUT OF THE WINDOW AT ALL!



NO. 163  
"CHILDREN AT PLAY"  
BY PHIL M. RILEY, BOSTON, MASS.

A FINE BIT OF GENRE WORK, IN WHICH THE ROLICKING ABANDON OF CHILDHOOD IS WELL DEPICTED. THE COMPOSITION COULD BE HELPED BY PUTTING THE CAT IN THE PITCHER IN THE BACK GROUND AND THROWING THEM BOTH OUT OF THE WINDOW. (PLACE YOUR THUMB AND FINGER ON THE CAT AND PITCHER AND SEE IF WE ARE NOT RIGHT.) THE USE OF A PANCHROMATIC PLATE AND A SOFT FOCUS LENS WOULD HAVE SUBDUED THE FRECKLES ON THE ONE BOY'S FACE.



NO. 164  
"THE EXPLODING CODFISH BALL"  
BY KATHERINE BINGHAM, BOSTON, MASS.

SUFFERING HEINZ IN TOMATO SAUCE! BOSTON IS CERTAINLY BREAKING AWAY FROM ITS CONSERVATISM. ALSO MAKING A REAL CODFISH BALL. BE THAT AS IT MAY—HAD YOU POSED THE CODFISH BALL A LITTLE MORE TO THE RIGHT, SO THAT THE VICTIM COULD HAVE EXTENDED HIS LEFT LEG ALOFT, THE EFFECT, AS A WHOLE, WOULD HAVE BEEN BETTER. GET ANOTHER, CODFISH BALL AND POKE IT HARDER AND YOU WILL GET MORE FORCE TO THE EXPLOSION.



NO. 165  
"FUNERAL DIRGE OF A JAPANESE PRUNE"  
BY JOHN AUBURN WILSON, PHILA., PA.

AS A RULE, POLITICAL SUBJECTS ARE NOT CRITICISED IN THIS DEPT. BUT AS THE RELATIVES WISH IT, HERE GOES. THERE'S NOTHING THE MATTER WITH THE PRUNE, AS FAR AS WE CAN SEE, IT'S THAT MUSH ROOM-HEADED DINGBATTUS, BLOWING ON THAT MURDER STICK, THE FLUTE! BY THE SEVEN RED-FACED BABOONS, OF BACK-BAY, WHAT AILS THAT MAN'S HEAD? WHEN WE RECEIVE THIS MISSING DATA, WE WILL GO ON WITH THE CRITICISM, NOT BEFORE!



NO. 166  
"THE EVENING MEAL"  
BY F. HEIDELBERG, PHILA., PA.

HERE THE RELAXATION, AFTER A HARD DAYS TOIL IS ADMIRABLY PORTRAYED. AN INFORMAL AND SOCIABLE EVENT, AS THE EVENING MEAL SHOULD ALWAYS BE. THE COMPOSITION WILL BE GREATLY SIMPLIFIED WHEN THE HOT COFFEE POT IS BLENDED INTO THE DOG. YOUR PICTURE IS A TYPICAL "HOMEY" SCENE AND ONE THAT 75 PER CENT OF MARRIED PEOPLE WILL JUST "EAT UP!" JOHN GARO, HIMSELF, COULD DO NO BETTER.



167 "PORTRAIT OF A LADY"  
BY PAUL LEWIS ANDERSON, (ADDRESS NOT GIVEN, WE SUSPECT IT IS BOSTON)

(HELLZA POPPIN IN THE BOSTON CAMERA BUND!) MR. ANDERSON INFORMS US THAT, THE FILM MELTED AND THE FEMALE'S EAR, HOLACAUSTED DOWN TO HER SHOULDER. (PROBABLY NOT ENOUGH DASH PAPRIKA IN THE FIXING BATH) REMEDY: FAKE SOME HAIR, OVER THE BARE PLACE AND RETOUCH EAR INTO A BUTTERFLY.



## Our Illustrations

(Continued from page 104)

composition and is well placed. Data:  $\frac{1}{25}$  second; F/8 stop; Eastman  $3\frac{3}{4} \times 4\frac{1}{4}$  N. C. film; pyro tank-developer; 4 x 6 enlarged Cyko print.

On page 92 Mr. Davis has given us a characteristic view of lower Fifth Avenue, New York, animated and well composed, with Washington Arch dominating the scene. While we all are interested in any monument associated with an eminent and honored American, like George Washington, some of us prefer a more appropriate object, by which to express our admiration of the personage, than a Roman arch which typifies arbitrary power as well as structural solidity. I, for one, should have been more pleased, had Mr. Davis selected an equally typical view of famous Fifth Avenue. For instance, standing on the avenue, near Forty-Second Street, and looking in a southwesterly direction, one may obtain a striking combination of street-traffic and the familiar Public Library. Or, farther north, near Fifty-Ninth Street, one may behold a lively scene, with Cornelius Vanderbilt's residence and Hotel Gotham in the back, at the right, and Hotels Netherland, Savoy and St. Regis, at the left. Of course, there is the celebrated Flatiron Building, on the east side of Fifth Avenue, viewed from Madison Square; but this much-photographed view is likely to be avoided by discriminating pictorialists. Nevertheless, these views are distinctly representative parts of Fifth Avenue and capable of artistically effective treatment. Data: In summer, 7.20 A.M.; hazy clouds over sun;  $3\frac{1}{4} \times 4\frac{1}{4}$  hand-camera; flex anastigmat; 6-inch focus; F/6.3;  $\frac{1}{25}$  second; Cramer Inst. Iso; print on  $6\frac{1}{2} \times 8\frac{1}{2}$  Enlarging-Cyko, Studio Surface.

Everybody knows about the earthquake of San Francisco. There have been minor seismic disturbances before and since this dire catastrophe. Mrs. Fletcher has pictured one of the characteristic results of such an event — gaping fissures in one of the outlying streets of the great city, now deserted (page 94). There is the picturesque touch that Mrs. Fletcher knows how to impart to her camera-pictures. Data: May, 1906; afternoon; 4 x 5 Poco Camera; regular R. R. lens; time-exposure; 8 x 10 enlarged Cyko print.

## The Beginners' Competition

A CHEERFUL sight this, on page 97 — a boat-load of American boy-scouts returning from a visit to one of Uncle Sam's men-of-war seen in the distance. The scene is replete with interest and, to those inclined towards too serious thought, affords food for reflection. The photographer, in producing this picture, reminds me, in a remote sense, of the words of Emerson — "he builded better than he knew," for it is doubtful that he was conscious of assembling material not only for pictorial interest, but for sympathetic concern. Mr. Hasse exhibits a very clear and effective technique, albeit he permitted the feature of chief interest to occupy the exact center of the picture-area. Data:  $2\frac{1}{4} \times 3\frac{1}{4}$  Ica Camera; fitted with Carl Zeiss F/4.5 lens; intense sunlight;  $\frac{1}{100}$  second at F/8; Vulcan film; pyro tank; 5 x 7 enl. on Velours Black.

A. J. Weiss is to be praised for showing how to avoid the common error of picturing a lovely mountain-stream and the usual, charming road along the side of it — a view of equally divided interest or two complete pictures in one. Here — page 98 — the road controls the pictorial interest, the light falls at an opportune time and the composition is judicious and pleasing. The brook may still be seen, but is prudently subordinated. Data: April, 1915; 9 A.M.; bright sunlight; 1A F. P. K. ( $2\frac{1}{2} \times 4\frac{1}{4}$ );

5-inch B. & L. R. R. lens; stop, U. S. 32; 5-times color-screen; 2 seconds; Eastman N. C. film; pyro in tank; direct print on Seltona Cream Smooth.

The sheep, in an appropriate pastoral setting, page 99, show Miss Scales to be a successful worker. It is not considered good taste to have the models stare at the camera; but under certain conditions it is not objectionable. It requires no skill to arrest momentarily the attention of a child or an animal. A motion or a noise, a click — and the picture is bagged. If Miss Scales will get her pets into an harmonious group, so that the exposure can be made without any evidence of effort, she will have made so much progress in this line of work. Data: November, late afternoon; dull light; 3A Kodak ( $3\frac{3}{4} \times 4\frac{1}{4}$ ); R. R. lens; at full aperture;  $\frac{1}{25}$  second; Eastman N. C. film; M. Q.; direct print on Azo E. Medium.

The child-study, by Evelyn Hinckley, page 104, is a clever and attractive piece of photography in the nude. "A bit daring," some one will say, "to pose a young miss so openly on the strand, with no sort of protection against intrusion from the curious!" But the little girl is not lying on the soft sand of the beach and exposed to the promiscuous remarks of passersby. The soft, carefully graded lighting of the delicate body, and the cleverly simulated open-air effects betray the resources of a well-equipped professional studio. All the same, the artist merits high praise for her delightful skill. Data: 10 A.M.; good light; at full aperture; whole plate ( $6\frac{1}{2} \times 8\frac{1}{2}$ ) camera; 10-inch Ross Homocentric, Series B; Imperial plate (G. Gemert, New York, American agent); pyro. Halftone, by courtesy of the Imperial Dry-Plate Co., London, England.

## The End of an Old Swindle

FOR years — indeed, ever since its initial appearance, back in the eighties, the making of colored concave-glass photographs began to be used as a means to swindle people. A Boston firm, in particular, developed a scheme to get rich at the expense of a trusting public, by selling the materials for this work — convex-concave glasses, colors, brushes, etc. These equipments would cost the victim from \$12.00 to \$18.00 each, but the proprietor offered to buy the finished product from the embryonic artists at prices ranging from \$3.00 to \$5.00. He advertised extensively in the daily press that for the sum of \$1.00 he would teach the method of producing these artworks, and that any one could earn from \$6.00 to \$10.00 a day at home. The proprietor of this concern was finally arrested, tried and convicted last June. During the trial, held in New York, the United States District Attorney told the jury that during 1914 the accused had nearly 1,100 customers in New York, and about 1,200 in Boston and that these persons had paid over \$22,000 for instruction-outfits, receiving in return less than \$2,500 for accepted work! Lured by the promise of the advertisements, many poor men and women took their small savings out of the bank and invested them in the scheme, only to lose all; for the finished pictures were seldom, if ever, "satisfactory," and so the astute swindler did not purchase. He is believed to have obtained more than \$500,000 by swindling persons through his plausible advertisements. He is now paying the penalty in prison, where he should have been sent many years ago. American justice is slow, but sure!

## Removal Notice

THE Meyer Camera & Instrument Co., Inc., has removed its offices and salesroom from 18 West 27th Street to 31-33 East 27th Street, New York, N. Y. As the change is merely across Broadway, and into superior quarters, regular patrons will have reasons to be pleased.



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**To Advertisers:** Advertising-rates on application. Forms close on the 5th of the preceding month.

**Published Monthly,** on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain,** Houghtons, Ltd., 88-89 High Holborn, London, W.C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

WILFRED A. FRENCH, Ph.D., Editor and Publisher

PHIL M. RILEY, Associate Editor KATHERINE BINGHAM, Editor, The Round Robin Guild

383 Boylston Street, Boston, Mass., U. S. A.

Cable Address, "Photoera"







*"Under the cooling shadow of a stately elm  
Close sate I by a goodly river's side."*

THE LONE ELM, JACKSON, N. H.  
CLIFTON CHURCH



# PHOTO-ERA

The American Journal of Photography

Vol. XXXV

SEPTEMBER, 1915

No. 3



A SHELTERED COVE

WILLIAM S. DAVIS

## Water-Front Scenes

WILLIAM S. DAVIS

**T**HE abundance and picturesque nature of many subjects met with around the water-fronts of towns and cities would seem to offer sufficient inducement to pictorial workers who have access to such localities to take advantage of them; yet, to judge by the small number of compositions of this character which are shown, it would seem that either a large number of photographers do not realize the value of such material, or, having tried a few times with indifferent success, passed on to "pastures new," when a little time spent in getting acquainted with the subject would richly repay them.

As readers of this magazine know, I have a particular liking for marine material of all kinds, and, after improving every opportunity to study these scenes, it has been my experience that something fresh is always presenting itself; so far from growing stale, the more such work one does the more inexhaustible the supply of mate-

rial appears. Living at the eastern end of Long Island, within sight of salt water, I have found much interesting material right at hand; for, aside from various classes of shipping which present themselves from time to time, many of the most beautiful changes are caused by shifting effects of wind and wave, which are naturally a very important consideration in marine pictures. Further variety in the foreground-details has been afforded by near-by towns and fishing-villages, where, along the wharves and beaches, inviting bits for sketches and camera-studies are constantly to be seen. Perhaps it is a group of fish-shanties or boat-houses, with small craft high and dry upon the shore and nets spread out to dry; some old wharf, with vessels alongside casting wavy reflections in the water, sails half raised to dry in the bright sunshine; and then, too, the ship-yards must not be overlooked. In the old town of Greenport, only a few miles away, there are a number of these, where vessels are



always to be found at varied stages of construction and destruction, or receiving an overhauling upon the ways. In fact, all along the coast attractive subjects exist in many places. The entire New England coast is a rich locality in this respect; and while popular interest has always centered most upon the northeastern portion, I know by experience that much good material is to be found around the southern shore, among such places as New London, Noank, Mystic and Stonington, to mention but a few. Several of my illustrations are characteristic examples.

So far I have referred only to the smaller ports and villages; but around every large city, including sea, river and lake ports, there is a great field for work if one will only look about a bit. The possible subjects are so numerous it would be a task to try and enumerate half of them; so we can only advise some trips of exploration around the piers, and study of the water-front itself from a ferry or other boat.

Owing to the nature of the material, changes in pictorial effect are brought about more through alteration in lighting, quality of atmosphere, and grouping of shipping than by the particular time of year; with, of course, the noteworthy exception of snow and ice, the presence of which works a very effective alteration in certain cases. Owing to the facts noted, the photographer may take up marine subjects at any season when most convenient, with the assurance that the chances for pictorial success are always good. Among our illustrations, selected with the idea of showing some of the variety possible in water-front scenes, are pictures taken at entirely different times of year, from winter to midsummer.

The beauty of all open-air scenes depends to a very great extent upon the feeling of atmosphere and luminosity given in the finished picture,

marines and shore-views being no exceptions. In fact, these points should be especially cared for, since contrasts of light and shadow are frequently great, and often in direct juxtaposition; as, for example, a vessel's spars and rigging seen against the sky. The best way to avoid a harsh effect in such cases is to take advantage of the harmonizing middle-tones, always more plentiful when the atmosphere is softened by haze or clouds, and aim to secure enough tonal gradation or detail in the shadows to make them luminous.

While the light is always more intense on, or in the immediate vicinity of, a large body of water, the general contrasts are, for the same reason, proportionately greater; and many work-



A BIT OF NOANK

WILLIAM S. DAVIS

ers either do not know or disregard the fact that to keep a wide range of tones within reproducible limits of plates and printing-medium exposures should be sufficient to cause the shadow-detail to appear before the highlights have time to block up into opaque masses during development of the negatives. Since both lengthening exposure and shortening normal time of development have the effect of decreasing contrast in a negative, it is only logical to take advantage of both means to control the final effect; or, in other words, follow the old, but sound, advice, "Expose for the shadows and develop for the

lights." I know there are some who will say that if this is done the snap and brilliancy of the highlights will be lost on account of overexposure; but the fact is this rarely happens when suitable materials are used. In many cases when the production of a flat, foggy negative has been laid to overexposure the true cause would have been found in some slight leakage of light around the camera; or else a form of general lens-flare, always likely to occur if some kind of hood is not used to shield the front combination of a lens from very strong light, either direct or reflected.

As to materials, those who use plates will find any good brand of rapid double-coated orthochromatic perfectly suited to such work. In the

of anti-screen plates be used, there are times when it is advantageous to obtain additional color-correction by aid of the filter. While the object of using a screen or filter is to subdue the over-active colors, and so adjust their actinic action upon the sensitive film that a better monochromatic rendering is produced, the alteration thus secured is also frequently a help in controlling general contrast, because in the majority of instances the least actinic colors are found in the darker parts of a scene, while a high percentage of over-active blue and violet rays is reflected from the lighter portions; consequently, if a filter is not employed the photographic contrasts are greater than those seen by the eyes. On this ac-

count the usefulness of a ray-filter is especially indicated where strong contrasts prevail, and when light objects, like white sails in sunshine, come against the blue sky.

While exposures must naturally be increased when a filter is placed upon the lens, this does not always limit its use to stationary subjects; for with a four-time grade (the kind commonly employed), a fairly large stop, say F/6.3, and good summer-light, it is frequently possible to obtain the desired results around the waterfront with the



THE APPROACH OF EVENING, NEW YORK

WILLIAM S. DAVIS

past I have depended mainly upon a well-known brand of single-coated isochromatic, as these were the kind I was in the habit of using for other work, and by backing them when necessary I usually obtained satisfactory results; but the double-coated grades undoubtedly possess more latitude and are able to render extremes of contrast more readily. When it is desirable to secure as good color-correction as possible without the use of a filter on the lens, backed anti-screen plates are excellent. A ray-filter of medium depth should, however, be included with other accessories in an outfit; for, even though some variety

shutter set for 1/25 of a second, which is usually quite fast enough to catch moving vessels from shore. If the camera is used aboard a moving boat a faster shutter-speed is sometimes required, since movement of the camera is more likely to produce a blurred image than movement in the subject; but under favorable conditions it is allowable to cut down the exposure more and still use the filter, when there are no deep shadows near-by to suffer in consequence.

I have not offered any particular suggestions as to composition or direction of lighting for various types of scenes, because the choice must





ON THE WAYS  
THE DRYING SAIL  
WILLIAM S. DAVIS





WINTER-QUARTERS  
 OLD WHARF, NOANK  
 WILLIAM S. DAVIS





in every case depend to a great degree upon the personal good taste and feeling of each worker; but it might be well to caution the novice against including too much in any one picture, for, unless composed of large masses of interesting shapes an extended view is likely to prove a disappointment when reduced to the small scale of an ordinary-sized photograph. On the other hand, the seemingly little bits, which many pass by, can be handled better and are therefore likely to be productive of more pictorial results. So far as lighting is concerned, it is true that the majority of subjects are seen at their best during the middle hours of forenoon or afternoon, because the proportion of light and shadow is usually well balanced then; but one should be on the lookout for attractive effects at all other times of day — and, for that matter, night, too! As an example, the picture here presented of shipping along the East River water-front of New York was taken late one afternoon from the deck of a steamer just after clearing the slip, the sunlight just illuminating the “sky-scrapers” seen in the background through the river mist, while the near-by shipping in the slip remained for the most part in shadow, thus emphasizing the several planes of perspective. On the other hand, the wharf at Noank was taken near noon in soft sunshine; but in this case the darker tones of the foreground naturally formed a clear-cut pattern against the sky, with no distant objects between.

While it is desirable to obtain clouds with shipping when a composition needs them, this is not always possible, especially in the case of transient groupings, which constantly occur in all marine compositions; for nature sometimes fails to provide at the opportune instant the crowning touch of attractive clouds when all other parts of a scene seem ideal in arrangement. Under such circumstances the only alternative for the photographer is either to leave the subject alone entirely or to take things as he finds them and add a suitable sky later by double-printing. Therefore, I would suggest the desirability of securing good cloud-formations alone as the chance occurs, selecting such as might naturally accompany various types of marine and landscape-compositions. Of course, care is always necessary in combination-printing to choose a sky in harmony with the character of the view, true in direction of lighting, and then printed to a shade which will be truthful in tone-values with the foreground-portion. If these conditions are complied with, however, the result should bear inspection successfully. Limitation of space forbids a description of the different methods; but as such information has been given many times in the magazines, those who are not acquainted with the details may look them up. Several of my illustrations are specimens of what may be done by adding clouds from other negatives taken under similar conditions.



# The Keys of Improved Chemical Excellence



## Part I. Manufacturer, Dealer and Photographer in Relation to Good Materials



PHIL M. RILEY

**A**N editorial in PHOTO-ERA for June made mention of the widely varying quality which the same sensitive materials yield in the hands of different photographers — that relative technical excellence which we speak of as chemical effect. This fact has often been remarked by one camerist to another, and it has furnished a subject for discussion at many camera-club meetings. Plate- and paper-demonstrators and photo-supply salesmen have had the problem propounded to them, at times even with the insinuation that manufacturers' sample-prints and negatives are made with better materials than those regularly stocked by the trade. The Answers to Correspondents Department of PHOTO-ERA has also had so many queries along this line that it has seemed advisable to use "the keys of improved chemical excellence" as the basis of an article.

I say "keys" because there are two — good materials, and painstaking thoroughness in their proper use — to each of which a section of the present article will be devoted. Happily, the first of these keys is readily obtainable, and the second within the reach of every serious-minded worker.

Photographic trade-conditions in America today exemplify the survival of the fittest. New products occasionally appear upon the market, and if meritorious usually attain some measure of success, for the eye of honest publicity does not long countenance the continued sale of inferior goods. We have at present on the market several plates, films and papers, known to every reader of photographic magazines, which have stood the test of time. Such high-grade products every camerist will find it worth his while to use until he has become proficient in the photographic art, when he can judge intelligently the merits of any new goods which interest him.

All sensitive materials of well-known brand have back of them the sterling reputation of a firm-name which both the personal integrity and business acumen of its owners ensure being maintained. Thus every box of plates, roll of film and package of paper contains the firm's stated or implied guaranty, the latter often taking the form of a complaint-blank to fill out and return in case results seem to be unsatisfactory.

This is the consumer's insurance. He knows that the manufacturer's intention is to supply

perfect materials; that the goods are produced by skilled employees under conditions as nearly ideal as it is possible to make them; and that the departments of cutting, sorting, inspection, testing and packing are maintained under constant and rigid supervision. The photographer knows, further, that he can depend upon the cheerful co-operation of the manufacturer in case results do not meet his expectations; that his complaint-blank will result in a thorough inquiry into the facts in order to determine whether the fault lies with the manufacturer, the dealer, or the photographer himself. And it can truthfully be said that an impartial investigation finds the photographer often at fault, the dealer occasionally, and the manufacturer rarely so. This, however, will not annoy the sincere and conscientious camerist, because it teaches him at the hands of an expert what he should and should not do, at the same time giving him the benefit of that indispensable form of education — experience — which causes the teaching to be remembered.

Our leading plate- and paper-makers place in the hands of many thousand dealers, throughout the country, products about as nearly perfect as it is possible to manufacture. Most of these dealers know how to store them until passed on to the ultimate consumer, the photographer; yet occasionally, either through ignorance or thoughtlessness, mistakes are made which prove detrimental to materials remaining unsold for a considerable period. Obviously, that store which sells the most goods is most likely to have the freshest. I say this not in disparagement of the small dealer — for his exemplary methods and care sometimes outweigh the greater and ever-changing stock of his larger competitor — yet when perishables, so to speak, are concerned, a constant incoming supply usually provides an important guaranty of safety.

Films and many papers have stamped on the package a date before which the contents should be used. Do not accept goods from any dealer after this expiration-date, and be sure to use the materials before the final day arrives. Dryplates are not dated in this manner, probably because most ordinary brands are of such excellent keeping-quality as to ensure good results within any reasonable period of storage. All the same, it is to be hoped that plate-manufacturers will one day adopt



the custom of dating their plate-boxes. Until then I shall continue to make it my custom to mark with a rubber stamp the date of purchase upon every package of material that goes into my dark-room in order that I may be sure to make use of it before it has had an opportunity to deteriorate on my hands.

Whether the local dealer be large or small, observe his storage-facilities and display-windows, and patronize him only if he be intelligent and up to date. Plates, films and papers are sensitive to surrounding conditions, such as light, heat, humidity and the passage of time. They should be stored in a cool, dry, well-ventilated place, free of smoke, fumes of acids and other chemicals, particularly sulphurous, and gas-leaks. Turpentine and oil have an injurious effect, and so new paint must be avoided, likewise all volatile oils, essences, etc. It is important that they be used within a reasonable time and not subjected to extremes of temperature nor sudden changes. For instance, bringing dryplates from a cold stock-room into a warm store in winter will cause condensation of moisture on the film and consequent mildew-spots, very often fog, if not used at once. Excessive heat in summer is fully as detrimental as atmospheric dampness, a temperature of 65 to 75 degrees being ideal. Always stand packages of plates, films and papers on edge to avoid abrasion-marks due to pressure.

With these precautions, very rapid plates ought to remain in good condition for at least six months, and slower brands will often show no deterioration after two years. Many photographers seem to think that orthochromatic plates do not possess the keeping-qualities of ordinary brands, but the plates of to-day so nearly approach chemical perfection that this is hardly true. For all practical purposes it may be assumed safely that orthochromatic plates will keep as long as ordinary brands of the same rapidity. This is not true of panchromatic plates, however, which are sensitive to red as well as all other colors. Heat acts in a manner similar to weak light, and they must be kept in the coolest available dry place. Such plates should be bought of the dealer only as they are needed, and any unused plates in each dozen ought to be stored in the most careful manner.

If your negatives are unsatisfactory, and you believe the plates or films used promptly by you were stale when you bought them, do not hesitate to make inquiry regarding storage-conditions. The conscientious dealer will not hesitate to show you his stock-room, that you may draw your own conclusions. Beware of the goods sold by a firm that keeps its reserve stock in a basement. Unless the location be in a large modern building having one sub-basement or more, such a stock-room is

likely to be damp — especially in summer, when no heating-plant is in operation — and light-sensitive materials kept there for very long will become stale, plates and films showing dark edges and lack of density upon development, and papers giving flat, muddy prints, perhaps darkening altogether.

This applies quite as forcibly to the storage of chemicals, unless hermetically sealed — and the quality of a seal is always questionable. The shallow "shive," particularly, which must be dug out of the bottle with a pointed instrument, and depends chiefly upon a coating of paraffin to make it air-tight, cannot be used again effectively. It should be replaced at once by a large cork of proper size. Many chemicals deteriorate through oxidation, by absorbing moisture from the air, or, in the case of crystals, by losing water when exposed to dry air, thus making it necessary to keep them in tightly stoppered bottles and as nearly uniform atmosphere as possible in case the seal is not tight. The most important of such chemicals include ammonium bromide, ammonium carbonate, ammonium sulphocyanide, calcium chloride, ferric ammonium citrate, ferrous oxalate, ferrous sulphate, potassium cyanide, potassium metabisulphite, potassium sulphocyanide, sodium carbonate, sodium phosphate, sodium sulphite, uranium acetate, uranium chloride and uranium nitrate. For instance, sodium sulphate has only slight preservative properties, but acts as a restrainer much the same as potassium bromide. Thus a developer containing oxidized sodium sulphite crystals brings out the image slowly and with considerable stain, for the color of a negative depends upon both the quantity and quality of the preservative. Anhydrous salts of sodium are very generally used now, and are in every way preferable to crystals, being of nearly uniform quality and more stable in storage.

Several chemicals used in photography are more or less deliquescent, tending to liquefy, and must be tightly corked to protect them from the action of hot and humid air. Among them may be mentioned gold chloride, ferric chloride, potassium carbonate, potassium hydroxide and sodium hydroxide. It would be very annoying to find when your scales are adjusted ready for weighing that as a result of your own carelessness a bottle of potassium carbonate had become a heavy, pasty mass of uncertain composition.

Another class of chemicals is sensitive to the long-continued action of light, and must be kept in the original non-actinic orange-colored bottles and stored in a closet, drawer, or dark room. Solutions must be stored in the same manner. The list includes ferric ammonium citrate, ferric chloride, gold chloride, mercuric chloride, plati-



SUNLIGHT AND SHADOW

WARD E. BRYAN



num perchloride, potassium chloroplatinite, potassium ferrieyanide, potassium iodide, silver chloride, silver nitrate, uranium acetate, uranium chloride and uranium nitrate. It would be exasperating indeed to learn after a period of time that the ferric ammonium citrate for a blue-print sensitizer or the gold chloride for a P. O. P. toning-bath had been rendered impotent by the thoughtless use of a clear glass bottle placed in a well-lighted room.

Beware also of the goods sold by a firm placing plates, films and papers in display-windows where the sun will shine upon them during part of the day. If the light does not penetrate the packages somewhat in the course of several days the heat of the sun will, and as heat is first aid to all chemical change it hastens deterioration of all light-sensitive materials and so shortens their life.

I thought that all dealers knew this, until I saw several boxes of dryplates in the southerly window of a Boston drug-store this spring, and so to mention several other similar instances which have come to my attention seems apropos. A photo-supply dealer located in a small, poorly ventilated store near one of the hottest street-corners of Washington, D. C., formerly kept a reserve supply of dryplates on a top shelf near the ceiling, where the air seldom changed and the temperature in July suggested a Turkish bath. In Brooklyn a cigar-dealer also sells films and gaslight papers which he used to keep on shelves built along a wall from the face of which a chimney projects several inches. I placed my hand against the wall one December day and found it distinctly warm; also, upon trial, the paper proved to be stale and brittle, although used three months before the expiration-date on the package, and a bottle of sodium sulphite crystals was considerably oxidized. While on a business-trip I found in a Philadelphia drug-store that the photographic materials had overflowed, so to speak, the space allotted to them, and that a pile of film-packs stood on the same side of a shelf-partition beside several large bottles partly filled with acid — nitric, sulphuric and hydrochloric. A  $3 \times 5\frac{1}{4}$  pack from this pile, not a rapid-selling size, was found to be the poorest it has been my ill-fortune to use. Again, in a New Hampshire hardware-store the reserve supply of chemicals for the photographic department was kept under and beside a sink where every employee splashed water about to his heart's content. I noticed that the tin containers were rusting, and found the contents of a can of anhydrous sodium sulphite so hard that a hammer had to be used to remove it. Now these are actual instances of dissatisfaction for which the dealer was responsible, and in each case I suggested a remedy which was gratefully adopted.

Your own local dealer will welcome similar suggestions from you if made in the right spirit.

Where the dealer's responsibility ends, there also the photographer's begins, and unfortunately he far too often fails to realize how great it is. If he would ensure uniformly good results, he must apply the intelligent dealer's principles of proper storage to any materials not used immediately. The amateur, particularly, is prone to believe that any unused corner of the house is good enough for a darkroom. This is untrue, for successful work demands proper conditions, although the requirements are tempered somewhat by the amount and seriousness of the work. The trouble lies chiefly in the custom of storing unused materials in the darkroom — whether it be a suitable place or not — and certainly the necessity to keep them elsewhere will prove an inconvenient arrangement, making drudgery of your chosen recreation. Comfort, convenience and health demand a clean, dry, well-ventilated workshop rather than a mere makeshift; a place where pure, normal atmosphere prevails, and where the temperature can be controlled within reasonable limits. A damp cellar, or a hot attic closet beside a chimney, is highly unsuitable. Plates, films, papers and chemicals cannot be kept in such places in the home any better than in a photo-supply store; neither do they withstand the damaging effects of gas-leaks or fumes from near-by acids and other chemicals any better.

Printing-out papers are very easily affected by these influences, and the utmost care in storing them will avoid waste and disappointment. Free silver nitrate is always present in these emulsions, and it eventually reacts with the paper support, causing discoloration first in the coating and later throughout the paper. The best means of protection, aside from the generally good storage conditions already described, is a tin box with a tight-fitting cover. This applies to papers of every sort. Tin biscuit-boxes, such as saltines come in, answer for the smaller sizes, and document-boxes, sold by all stationers, may be used for the larger sizes. Thus protected, printing-out papers ought to keep perfectly for six months, and will usually be suitable for use after a longer time. Hot weather seems to affect them little unless the air is damp.

Gaslight and bromide papers are like slow dry-plates, and keep well with reasonable precautions. Dampness, again, is to be avoided, for it prevents obtaining brilliancy and good blacks. Mere "softening" of the emulsion with age can be counteracted, in large measure, by an increased amount of bromide in the developer.

Platinum and ferropurssiate papers are even more susceptible to the presence of dampness, and they should be bought only as wanted, and



PORTRAIT

C. L. LEWIS

the whole contents of each package used at one time. Platinum paper depends upon the reduction by light of ferric oxalate to ferrous, the ferrous salt in turn reducing the platinic salt to metallic platinum. The presence of moisture facilitates this double reduction, hence platinum papers are put on the market hermetically sealed in tin cans containing calcium chloride to absorb any moisture in the can. If unused sheets are to be kept for a few days after the can has been opened,

rubber tape should be bound tightly around the cover and the can put into a tin storage-box which is located in the safest possible place that can be found.

Thus the first key of improved chemical excellence is to make sure that your materials are in perfect condition when you are ready to use them, and in ensuring this no reasonable precaution should be overlooked.

*(To be continued)*



# A Home-Made Adjustable Daylight-Enlarger

BRUCE KEITH



S a rule, those who have cameras and take the most interest in enlarging are the ones who work six days each week and do not have the money to buy an expensive enlarging-apparatus; so on Sunday they spend most of the day (really against their will) blocking out the light from a room and making a few enlargements. Such camerists can and will follow the simple instructions laid out in the following diagrams, which are based on accurate laws that regulate exposure, focusing, etc. There are on the market cheap enlarging-boxes, which enlarge to two diameters, and a similar home-made device was described in PHOTO-ERA in 1911. These do good work; but this one is superior to these, because you can make enlargements of any size up to eight diameters. That is, you can enlarge one linear inch up to eight inches, and your enlargements will be just as good as if you had paid a professional a good sum to do the work for you. In providing himself with an enlarging-apparatus a camerist very often thinks that the ability to enlarge from 4 x 5 to 8 x 10, for instance, will meet his every requirement; but sooner or later he will long to vary the monotony with occasional really big prints for framing.

Study Diagram No. 1, and if you find that your regular lens is of longer focus than five inches, add your copying-lens, which will reduce the equivalent focus of your regular lens about one-half. Or if you have none, use your supplementary portrait-lens, which will reduce the focus enough to prevent having to make a box high enough to be cumbersome. From Diagram No. 1 obtain the height to make your box. (From D to bottom of G — see Diagram No. 3.) The width and breadth of the box are decided by the size you wish to make your largest enlargement. Mine, for instance, is 12 x 16 inches, and is, I think, as large as most amateurs will care to buy paper. Look at Diagram No. 2 and make your box; stop out all the light; cut the hole in the top box (F) so that the camera will come through and rest on the lower box, and can then be strapped in place with a rubber band.

Now that you have the boxes F and G made and bolted together (Diagram No. 2), you may tack the strips in place that are to hold the shelf for the various enlargements. Having B, C and D in position, multiply the equivalent focus by  $4\frac{1}{2}$ , which will give you the exact distance in inches that the top of the shelf must be from the bottom

of the negative C in making a two-time enlargement. Also:

Focus x $4\frac{1}{2}$	gives distance for 2-time enlargement
" x $5\frac{1}{3}$	" " " 3 " "
" x $6\frac{1}{4}$	" " " 4 " "
" x $7\frac{1}{5}$	" " " 5 " "
" x $8\frac{1}{6}$	" " " 6 " "
" x $9\frac{1}{7}$	" " " 7 " "
" x $10\frac{1}{8}$	" " " 8 " "

Having tacked the strips in place, you may now paint the inside with dead black paint to prevent any reflection of light.

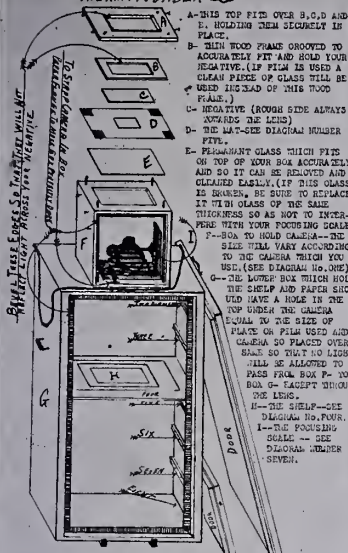
You are now ready to focus, and tack in place the permanent enlarging-scale. (See I, Diagram No. 2 and Diagram No. 7.) The best way to focus is to scratch off the film in the center of your negative and glue on in its stead two hairs in the form of a cross, which, when in position, will be directly over the lens. Now place A, B, C and D in position; also place the camera in position and put the shelf for a two-time enlargement. Now, with the lens wide open, get in the brightest light possible (the sun is best for this purpose, especially if your lens is small), and focus these hairs on the shelf until they are sharp. Now tack the focusing-scale in position and with a file make a groove at the exact position of the camera-indicator, and likewise focus and mark accurately for 3, 4, 5, 6, 7 and 8. Later you can put the figures on the scale, as shown in Diagram No. 7. You will now make several mats (see Diagram No. 5) and place the ruling on the shelf.

Your enlarging-box is now complete and ready to make an enlargement at any time the sky is clear and you have a few minutes' time.

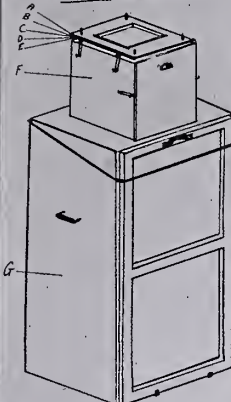
To make an enlargement, place mat and negative in proper position, then set the enlarging-indicator to the groove on the enlarging-scale to which you are enlarging. Unless your lens is an anastigmat, you will stop it down enough to ensure sharp definition over the entire enlargement. For instance, if the lens works ordinarily at U. S. 4, then stop it down to U. S. 16. Now pin the bromide paper in place and expose to the open sky, but never allow the sun to strike the negative during exposure.

The paper should be the kind that you use for contact-prints; for with this you are familiar and know how it should develop with your favorite developer. Later you can adopt any paper you wish. Of course, if you are using a very small lens and making a big enlargement, you will have to

## Diagram Number 2.



## Diagram Number 3



THE ENLARGING BOX COMPLETE

## Diagram Number 1.



FIRST-- FOCUS THE ABOVE INCH MARK (WHICH IS LIGHTED OR PRINTED LATER) WITH YOUR LENS SIDE OPEN, UNTIL IT MEASURES EXACTLY INCHES ON YOUR GRINDING GLASS AND IS SHARP. -- THEN MEASURE THE DISTANCE FROM THIS POINT TO YOUR GRINDING GLASS. -- THIS IS THE HEIGHT YOU MUST WANT YOUR ENLARGING OPTICAL SYSTEM TO BE NEGATIVE (SEE FIG. 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-22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“HOW MUCH YE MAKE?”

SUISAI ITOW

use fast enlarging-paper or bromide paper, these being about ten times as fast as fast gaslight paper.

Keep accurate records of the time required to print each negative by contact and an accurate record of your enlargements, with the time of year. Then, by knowing the light-values for the different months — which you can ascertain by reference to the exposure-guide printed in PHOTO-ERA each month — you will soon reduce your enlarging-tests to a minimum.

In brief, the advantages derived from the use of this box are: it starts the amateur along the path of correct and definite methods, instead of haphazard guess-work; it eliminates much time and energy spent in blocking out the light from a room to obtain exactly the same result; the enlarging-box can be pointed toward the open sky,

getting the maximum of light without the use of a reflector; it saves most of the time used in testing, as well as the paper wasted in these tests; and the enlarging-scale saves the hardest work of all, which is focusing.

✧

WHEN the expression of an emotion is aimed at, the print should be as large as the technique chosen will allow. If the original is well composed, it may be enlarged to almost any dimensions without loss of quality, for the grain of the image, which becomes apparent on enlarging more than fifteen or twenty diameters, is compensated by the fact that a large print is usually examined from a much greater distance than a small one.—PAUL LEWIS ANDERSON in *Pictorial Landscape-Photography*.



NATIVES GOING TO MARKET, PANAMA



NATIVE VILLAGE, PEARL ISLANDS

## Photography in the Tropics

H. G. CORNTHWAITE

**F**OURIST amateur photographers frequently experience great difficulty in timing exposures correctly when traveling in foreign countries. This is especially true if one's travels take him from far northern latitudes well into the tropics.

Large numbers of Americans will visit Panama and the West Indies this year en route to the California expositions; and as no tourist is adequately equipped without a hand-camera, a few remarks on picture-taking in the tropics may prove of interest to those making the trip.

Tropical countries have their advantages as well as their disadvantages, from the camerist's point of view. The excessive heat and high humidity cause photographic supplies

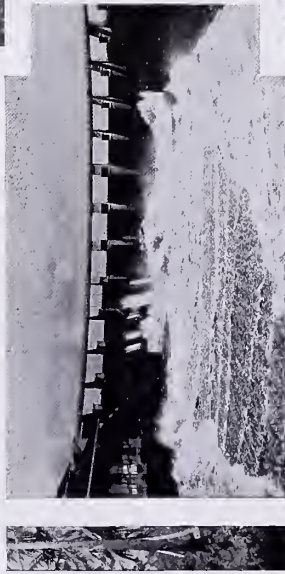
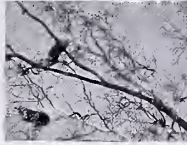
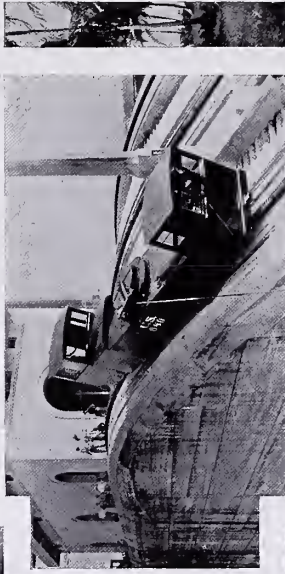
to deteriorate rapidly when exposed to the air. Films must be developed as soon as possible after exposure. Frequently they will mildew in less than a week's time. In the dry season, from January to April, development may be delayed for a week or longer without danger; but in the rainy season the writer has known films to mildew badly in four days. Ice is almost a necessity in developing films, for the water must be cooled to prevent blistering or frilling of the film.

The light is so much stronger in the tropics that snap-shots may be made with a much smaller diaphragm than is possible in the temperate zone, ensuring pictures of greater clearness and definition. The writer ordinarily uses stop U. S. 16 for snap-shot work, the time of exposure varying



OLD SPANISH RUINS NEAR PANAMA





SCENES ALONG THE PANAMA CANAL

from 1/25 second to 1/100 second, depending upon the strength of the light. Fully-timed exposures have been made at 1/100 second with stop U. S. 32 on certain occasions when the light was unusually bright; whereas 1/25 second at stop U. S. 4 will give fully exposed negatives out in the open in cloudy or rainy weather.

The strength of the light varies greatly at different seasons of the year. In Panama the light is most actinic in March and April, and weakest in October and November. Exposures require approximately twice the time (or diaphragm-opening) in November that they require in April, conditions of cloudiness being similar.

There is a great profusion of subjects to interest the camerist in a tropical country such as Panama. The tropical jungle teems with interesting specimens of plant- and animal-life. Picturesque forest, river, or general landscape-scenes are met with at every hand. Quaint native Indian villages may be visited by penetrating the jungle a short distance back from the beaten paths. Here the simple native life and surroundings may be seen and pictured virtually as they existed previous to the Spanish conquest of the country four hundred years ago. Those interested in the early Spanish history of the New World will visit the ruins of Old Panama

and the old forts at San Lorenzo and Porto Bello, whose decaying, vine-covered masonry-walls make photographic records, both interesting and pictorial. In Panama, the canal, recently opened to the commerce of the world, also offers abundant material for an interesting set of pictures.

IF the values of the scene are rendered correctly, and the scene is of a type with which the spectator is familiar, there will often be a suggestion of color, depending in strength on the activity of the observer's imagination, thus giving added force to the impression which the picture makes on him. This effect may be heightened by choosing a printing-color which will help to stimulate the imagination, as the psycho-

logical power of different pigments varies greatly. Thus, a snow-scene printed in blue-black on white paper will be powerfully suggestive, though any one who has observed snow closely knows that it may contain an infinite number of colors, so that mere blue can never render the scene accurately any more than gray can render a summer landscape. Similarly, the most obvious impression regarding sunlight is that it is warm, and by printing a summer landscape in warm gray or brown, the effect is intensified. — PAUL LEWIS ANDERSON.



NATIVE INDIAN BOYS



LOW TIDE, PANAMA BAY



NATIVE VILLAGE, PANAMA



COCOANUT PALMS



# An Enlarger for the V. P. Kodak

F. W. BASSETT



WITHIN the last year a number of articles have been written discussing the advantages of the miniature camera. All seem to point out that the pictures must be enlarged before they can be fully appreciated.

The combining of low cost, efficiency, compactness and real simplicity has made the Vest-Pocket Kodak, F/8, very popular with the amateur. The principal drawback has been the lack of suitable apparatus for enlarging. With the idea in mind that the lens that made the negative is the lens for making the enlargement, I have devised a simple enlarger, using the V. P. K. lens, for making prints up to 6 x 10 inches in size. The idea is not limited to the V. P. K., but can be applied to any fixed-focus camera — even the Brownie.

I cannot claim that a good instrument can be made from a few box-boards in a few minutes' time, but if you start with good materials, and take ordinary care in construction, you will be rewarded with the best means of making the most pleasing pictures from your V. P. K. negatives.

The first thing to consider after the plan of the enlarger is the bill of materials.

## TRACK AND NEGATIVE-HOLDER

No.	No. of pieces	Thickness	Width	Length	
1	2	1	1½	26 or 30	Rails
2	2	¾	1½	3¾	Cross-ties on rails
3	2	¾	2	7	Uprights
4	1	¾	2	3½	Cross-tie for uprights

## CAMERA-CARRIER

5	2	1	1¾	4¾	Carrier-runners
6	2	¾	2	2¾	Side of bellows
7	1	¾	3	3¾	Bottom of bellows
8	1	¾	3	3½	Top of bellows
9	1	¾	1	2½	Cross-piece for bolt

## EASEL-CARRIER

11	1	1	3¾	3¾	Runner for easel
13	2	¾	3¾	7½	Uprights for easel
14	2	¾	3	10	Easel

they may be cut to the exact length, as given in the bill of materials, ready to assemble. The 1-inch strips and a number of ½ x 1 inch laths can be cut from the remainder of the stock without any difficulty.

While no special skill is necessary to work up the pieces, it is advisable to get them at a wood-working-shop, where a band-saw and planer will save a few hours' time. The cost should not exceed half a dollar.

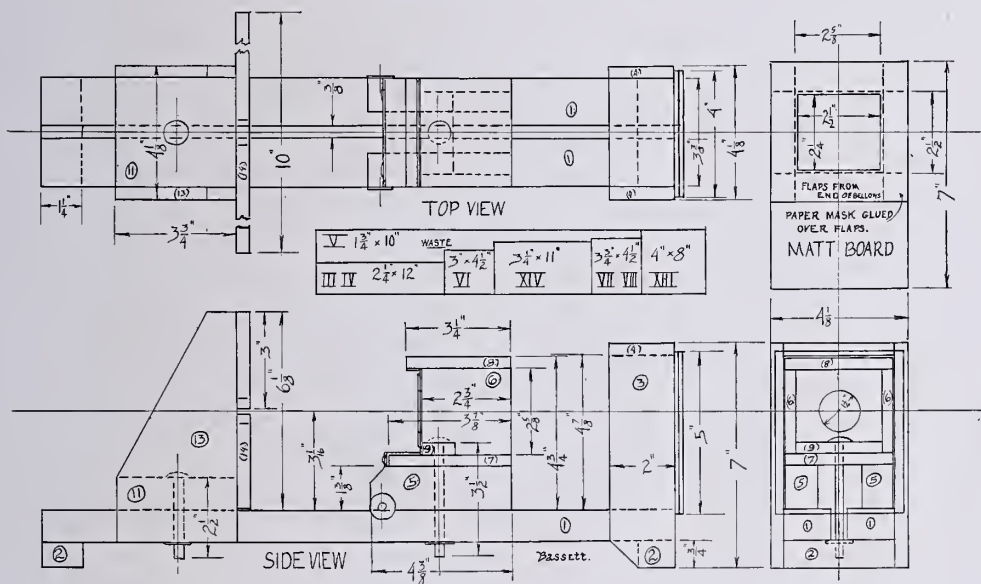
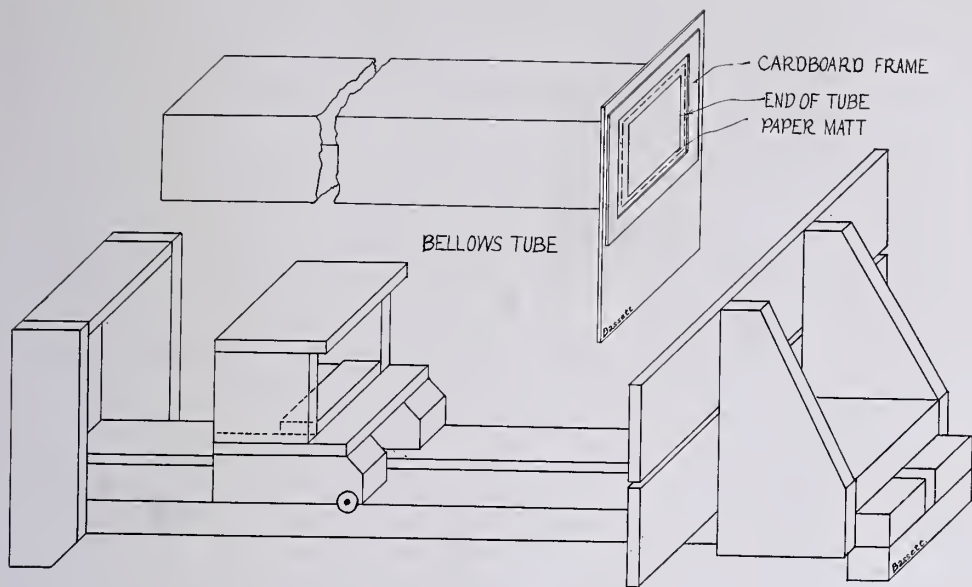
With everything ready we can now put together the easel and its carrier. First bore a ¼-inch hole for the carriage-bolt, to be used as a clamp. With either lath-nails or finishing-nails, tack the uprights on the runner-block, taking care to get the right angles as accurate as possible. Bisect the joint-edges of the two pieces for the easel and from these points measure 1⅞ inches to each side and square lines across the face to mark the position on the uprights. If you intend to try photomicrography, cut a V-shaped notch at the center of each joint-edge, so that when the easel is done it will have a square hole (standing on its corner) exactly in the center, so as to be in line with the lens- and negative-centers. Now fasten the two pieces to the uprights, spacing them about an eighth of an inch apart.

The easel is now ready to be used as a gauge in spacing the rails for the track. If the easel-carrier grips the track too tightly it will cause much trouble; so to avoid this insert a strip of thin cardboard between the projecting upright and the rail, and then nail on the tie-strip at each end. The negative-box is next to be added, and the track is done. Secure the uprights (3) to the rails, and then nail in the tie-strip at the top.

The camera-carrier now remains to be made. Bore a quarter-inch hole in the bottom of a piece of the bellows (7), and then nail to the side-pieces (6). Space the runners (5) on the track, and fasten on the bellows; then add the cross-piece (9), *with the carriage-bolt in place, before putting on the top*. A wing-nut and washer should be fitted to this bolt so that the camera-carrier can be clamped to the track at any place. Tack a couple of metal discs, taken from the ends of a V. P. K. film-reel, to the front ends of the runners to act as guides when focusing.

This completes the woodwork, and it should now be shellacked and the inside of the camera-holder and negative-box blackened. When dry, the shellac should be rubbed down with a little fine sandpaper.

If one has the tools, he can cut the pieces from a 1½ x 4 inch corner-board, which can be found at any lumber-yard. Lay out the ¾-inch pieces first, as shown in the drawing, and rip off the waste strips on one side. Now on each edge draw a line down equally distant from the sides and rip this out. You now have two lengths about ½ inch in thickness. Cut these apart and plane to ¾ inch in thickness. If the pieces are numbered it will save confusion. Now plane them to width, after which





The camera-box is yet to be fitted to receive the Kodak. A strip of black felt or heavy cloth is tacked on and folded over the end of the bellows, padding the shelf for the Kodak. Next glue a piece of black paper over the front of the bellows, as shown by the double line in the drawing. A piece of heavy cardboard about  $2\frac{3}{8} \times 3\frac{3}{8}$  inches is then glued over this so as to fill the space caused by the protruding edges of the sides of the Kodak. Cut a  $1\frac{1}{4}$ -inch hole in the cardboard and paper so that it will coincide with the opening in the back of the camera.

Two  $\frac{1}{2} \times 5$  inch rubber bands are now secured to the end of the bellows to hold the Kodak in position. At the loose end of each band work in a Gem paper-clip, so that the latter can be drawn back over the top of the camera-carrier and hooked over a couple of tacks, locking the camera firmly against the frame.

When in use, the shutter can be left open and the light cut off with a piece of cardboard, but I prefer the following way:

Cut from a heavy hat-pin wire two pieces  $2\frac{1}{2}$  inches long. Open the camera about  $\frac{1}{2}$  inch, insert the pins between the edges of the sides and the small, brass framework supporting the telescoping bracket, and then close the front against these pins. If the pins are correctly placed, the front will be open exactly  $\frac{3}{8}$  inch, and this will allow easy access to the shutter-release.

To remove the knurled disc on the back of the Kodak, carefully turn it to the left about 40 degrees (so that the two bright rivet-heads will be in line with the film-key). The little catch is now released and the cap can be lifted off.

The last thing to make for the enlarger is a paper-holder for  $5 \times 8$  paper, and a postcard-holder. Cut a piece of thin, white cardboard  $5 \times 8$  inches and a piece of black mask-paper  $7 \times 10$  inches. In the center of the latter cut an opening  $4\frac{1}{2} \times 7\frac{1}{2}$  inches. Now lay the white card over the matt and fold over one end and two side-flaps so that you will have an envelope opening at one end (or side) with a quarter-inch black margin around the white card. The postcard-holder can be made in the same way, but with a  $\frac{3}{16}$ -inch margin.

To block out the window, cut a sheet of black matte board so that it will fit in against the lower sash. Make a light frame of  $\frac{1}{4} \times 1$  inch edge-strips and tack around the edges of the card. A cord fastened near the center of the top of this frame and looped around the window-bolt will secure the whole thing firmly to the window. Now make a frame to fit loosely over the end of the negative-box and fasten this to the cardboard, near the top, with tacks. Cut a hole about 3 inches square to admit light to the negative when it is in the holder.

A small brass door-hook on each side of the negative-box will lock this in the frame. The other end of the enlarger is supported by a brace to the window, as shown in the photograph.

The negative is slipped in between two  $4 \times 5$  inch plates bound to the negative-box with rubber bands, arranged similar to those on the camera. The lower ends of the plates fit up to tacks driven into the end of the rails.

A reflector of heavy white cardboard about  $12 \times 18$  inches will be hung outside the window. The top sash can be slightly lowered to admit, near the bolt, a string fastened to the top of the reflector. Focus the enlarger with the easel at the end of the track and lower the top of the card until it shows at the bottom of the easel. Draw in the string a little and loop it about the window-bolt.

The top of the window can be blocked by slipping a sheet of black matte board between the sash and the guide-strip in the window-casing. When the curtain is drawn to the top of the enlarger no light will leak in.

To focus the enlarger, scratch some fine, clear lines near the center of an old, dense negative, and put the latter with a mask between the plates. Slip the enlarger into place, fasten with hooks and brace, and with the lens wide open, focus on the white ground of the paper-holder. Clamp the camera and easel to the track by tightening the thumb-screws. Pin the paper-holder on the easel with thumb-tacks.

In regard to the paper, the advantages are all with D. O. P. when you have good north light and the lens is set at F/11. I use Normal Studio Cyko cards and rarely give over two minutes' exposure. In loading the paper-holder, slip one hand in front of the lens and hold the track steady, and insert the card in its holder with the other. In this way the enlarger can be unloaded and immediately loaded without touching the shutter, and one card developed while another is exposed. Make notes on all exposures, for experience is no teacher if you don't keep a record.

The paper-holder can be dispensed with by making a spring-clip of a safety-pin. Pull off the head and bend this end of the wire so as to form a ring. Bend the pointed end toward this ring and you will have a spring-clip that can be slipped on the corner of the easel or in the slot at the center for holding postcards.

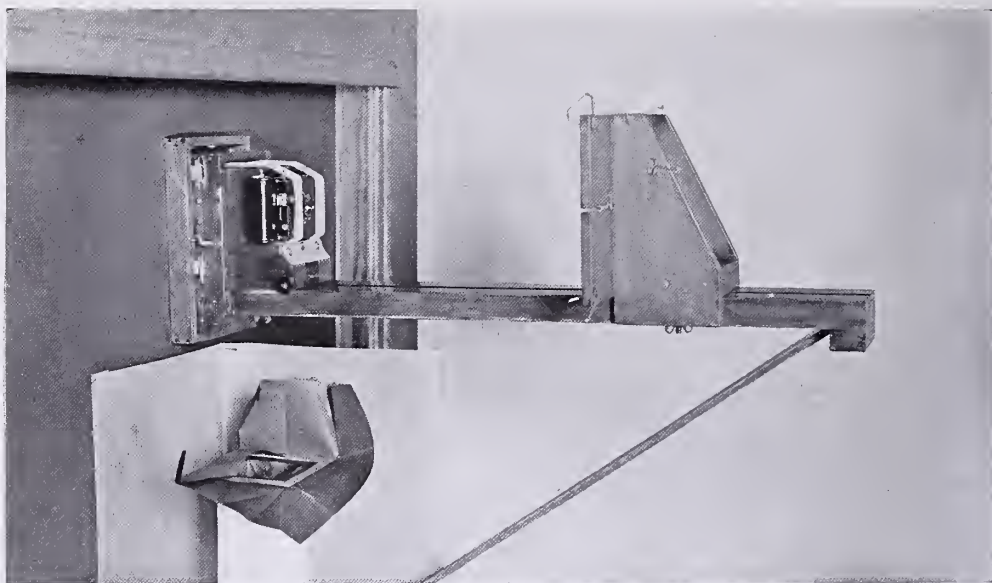
In the June, 1914, PHOTO-ERA, C. H. Claudy described the kind of negative most suitable for enlarging. To get sharpness in V. P. K. negatives, use a medium stop and be careful not to jerk the camera when pressing the lever. Hold the Kodak steady and slowly release the shutter and you will have no trouble.



MISS MADELINE LEWIS  
CHAMPLAIN & FARRAR







The completed enlarger is shown fitted into the frame on the matte board which rests against the sash. Note the small brass hook, and the rubber bands with Gem paper-clips hooked over the tacks. The camera is held with rubber bands, leaving the diaphragm-scale and pointer uncovered. The two wire rods which space out the camera-front can be seen against the white bands. The carrier slides into the negative-box, and the wing-nut under the track holds it in place. On the easel a number of spring-clips hold the paper in place. The lath brace is held on the window-sill solely by the weight of the track. Under the enlarger is a top view of the rear end of the paper bellows. The plate is put in the matte board, the black paper folded over, and the rubber band hooked over.



Here the enlarger is fitted with the bellows-tube ready for photomicrography. The easel is placed so as to use the full length of the track. Focusing can be done with either easel or camera-carrier. The construction of the pin-clips and paper-holder is shown in the foreground.

Enlarging negatives from bits of motion-picture film, and printing or enlarging these, is interesting. Full exposure should be given to the negative to avoid contrast.

Make a long bellows-tube of black paper, and the field of photomicrography, as described by E. J. Wall in the January, 1915, PHOTO-ERA, is open to you. Coins, class-pins and other opaque objects can be copied, using small plates and enlarging these if desired. I would suggest the following method of making the tube:

Cut a piece of black matte board 4 x 7 inches and make an opening in this  $2\frac{1}{2} \times 2\frac{3}{8}$  inches, as shown in the drawing. Now fold a sheet of black paper into a tube to slip into this opening. Slit the corners of the bellows for an inch, and bend back and glue these flaps to the card. Over this paste a thin mask, having a  $2\frac{1}{2} \times 2\frac{1}{4}$  inch opening. The other end of the tube will slide into the end of the camera-box. A frame of strips with a card tacked on the back will do for a cover on the negative-box. In copying pins and the like, study the lighting on the ground-glass and be sure the exposure is made under identical conditions.

### Coloring Prints with Oil-Paints

THERE are three principal methods of coloring photographs. First, there is painting in oils over a photographic groundwork. Second, there is tinting, done with aniline and other dyes. Another method which may be mentioned consists in finishing and tinting by means of French pastels or colored chalks, but this is rarely used commercially. The first two methods are really the best; but to ensure success in either one must have had artistic training, even to the extent of being able to paint the portrait without the photographic groundwork at all, this serving only to give the drawing. With oils a very poor image can usually be worked up into a quite passable portrait. For water-colors a

good photographic image is required, light yet with the gradations well rendered.

Tinting with aniline dyes is much simpler, and can be done to a certain extent by any one with a taste for such work; but owing to the fugitive nature of the colors it is bad policy to use this method. This means that if one is not an artist one must send out all work which is to be colored to a specialist. But very often a little coloring is wanted for which a very small extra charge can be made, yet with certainty of a satisfactory result. For such work a method is needed which is as simple as using dyes and yet permanent enough to last as long as the photograph.

A process which meets these requirements is to use artists' ordinary oil-colors in tubes in the same manner as would be done with dyes, but, instead of putting them on with a brush, using a piece of fine white cloth stretched over the forefinger, and for very fine work a piece drawn tightly over a wash-leather or paper stump, or even a piece of soft wood. Very good results can be obtained by this method, which, although not new, is comparatively little known. The results obtained necessarily vary according to the ability and taste of the worker, but it is so simple that even the least experienced can obtain a quite passable result. The most suitable papers for coloring in this way are those with a semi-matte surface, though a matte surface can be used if there is a good coating of gelatine to work on. Rough-surface papers, however, do not give good results, as the color is apt to gather in uneven patches and so cause a dirty-looking result. Strong, brilliant prints are best — not hard, but clean and bright, with well-marked gradations, as the photographic image has to show through the coloring and supply the light and shade. Glossy papers can be used, but the color does not adhere so well as on a good hard-surface matte paper, and is more easily rubbed off while wet.

*The British Journal of Photography.*



A CLASS-PIN IN THREE LIGHTINGS





*Copyright, 1914, by Wilfred A. French*

"LOOK WELL TO THE WEST"  
WILFRED A. FRENCH



# Pyro-Acetone Developer as a Preventive of Halation

WILLIAM H. ZERBE



NOTE-data says single-coated plate. It does not seem possible that a single-coated plate exposed against such a strong light could be so free from halation. How was it done?"

The above remarks are extracted from the criticism-sheets of one of the portfolio-clubs, of which the writer is a member, and who happens to be the author of the picture referred to above. This portfolio reached me at about the same time that the invitation from the Editor for an article for the *Annual* reached me. It occurred to me that the readers of the *Annual* might be interested in a method to develop single-coated plates, showing a minimum of halation.

"The Jardin de Dance," accompanying this article, is the photograph referred to above. It was made on a single-coated Polychrome plate, with a Bausch & Lomb Zeiss Ic Tessar lens at F/4.5, six seconds' exposure, developed with pyro-acetone. I question whether a double-coated plate would give better results with any of the coal-tar developers, especially if carbonate of soda or potash were used as the accelerator.

Another example showing the absence of halation on a single-coated plate is shown in the portrait of "Mr. Gouverneur Morris," the author. This, as can be seen, was made directly against the light, which, by the way, was the only source. Note the details outdoors, the texture of the draperies; and in the original print the delicate smoke of the cigarette can be seen. This had twelve seconds' exposure with a Bausch & Lomb Protar at F/8. The long exposure was given to obtain some detail in the shadows. Can you imagine what would happen in the highlights with such an exposure if developed in an ordinary normal developer? Even a double-coated plate would not stand this test well. The two accompanying exam-

ples are by no means exceptional ones. I meet these same conditions daily, and treat all of them successfully. In fact, I no longer use double-coated plates. I do not pretend to say that the non-halation plates would not be better, but since my results are so satisfactory I do not see why I should go to the extra expense of using them.

My developer is a Standard pyro-acetone developer, but instead of using the normal strength I increase the water, decrease the pyro, and use the normal quantity of acetone.

## A

Distilled water .....	16 ounces
Pyro .....	1 ounce
Sodium metabisulphite .....	.90 grains



MR. GOUVERNEUR MORRIS

WILLIAM H. ZERBE





THE JARDIN DE DANCE

WILLIAM H. ZERBE

B

Water .....	20 ounces
Sodium sulphite, anhydrous .....	2 ounces
Acetone .....	4 ounces

For a normal subject and normal exposure use

Water .....	10 ounces
A .....	1 ounce
B .....	2 ounces

Subject such as example shown

Water .....	10 ounces
A .....	2 to 4 drams
B .....	2 ounces

As potassium bromide tends to increase contrast I rarely use it.

This modified developer is not a hurry-up developer, and patience is required. The tray must be rocked during development or the negative will show marbled streaks. I do all my developing in a tray, but there is no reason why the modified developer could not be mixed in right proportions for time or tank.

I know of no developer capable of giving such fine gradation in any subject as pyro-acetone for light draperies and flower-studies. In fact, for anything where fine texture is desired it is the

ideal developer. Other qualities to commend it are that plates do not frill in hot weather, and it does not stain the finger any more than M. Q. does, one of the principal objections to pyro.

I feel sure that if any one who has not used pyro-acetone will give it a trial he will use it exclusively.—*The American Annual of Photography.*



As nature is infinite, diverse, eternally variable, unexpected and disconcerting, the real artist understands that he must at every moment create new modes of expression. What living creation suggests, the things that happen in his mind, the emotions that succeed one another within him with amazing swiftness, are to be immobilized by him by means that experience cannot teach. In such moments he is not a workman, but one inspired. Imitate him honestly and your picture will not resemble any work that he ever produced, and it will be as great as his masterpiece. Do not torture your mind in quest of abstract beauty; be content with the beauty that is in a landscape or an attitude. Be sincere. Sincerity is easily said, but it is not easily practised. Innumerable lessons learned are in its way.—*David de La Gamme.*



## EDITORIAL

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### The Lessons of the Past

IN the march of progress of the arts and sciences photography has taken a conspicuous part; but, as a comparatively new means of artistic expression, its advance has been somewhat slow. Unlike the masters in portrait-painting, the men who were eminent in photographic portraiture seem to have been forgotten — at least their influence seems to be no longer felt. The men who upset conventions in technical methods and blazed the way towards simplicity and breadth ignored the admirable work of the pioneers in portraiture — men who acquired their great skill only after long and serious study. Rocher, Sarony, Gutekunst, Landy — to speak now only of American notabilities — were names as distinguished in their own artistic activity as were those of the great portrait-painters. They dignified and glorified photography during the period in which they labored — 1868 to 1890 — and, it is gratifying to remember, they were appreciated during their lifetime. Each member of this illustrious group was thorough in all that he did. Nothing was slighted. In the lighting and arrangement of the figure, strict attention was paid to certain details that were considered indispensable to a thoroughly artistic achievement, and in these respects they simply followed in the footsteps of the great masters in portrait-painting.

They were careful to preserve the natural beauty of the features, particularly the eyes, and so to control the light as to avoid faults or exaggerated shadows. There were certain laws in composition observed scrupulously by the conscientious portraitists that were considered as inflexible as the laws of perspective and which it was not advisable to violate. For example, the direction of the eyes, the level of the chin, and the arrangement of the hands were points in composition deemed as important by the master of the seventies as trivial by the superficial worker of to-day.

In their eagerness to subject the sitter to as little discomfort as possible, many professional photographers deal lightly with such physical obstacles as double chins, large necks and strabismus and correct them on the negative by recourse to the etching-knife, brush and pencil. Commendable as this act of thoughtfulness may seem, is it not rather a subterfuge — an admis-

sion of the photographer's inability to manage problems that require a particular kind of skill? Now, the masters of the Sarony period faced these questions squarely. They studied anatomy of the face and figure, the appearance of the sitter before the camera, and the effect of the illumination. Having surveyed the model in a quiet way, the master-photographer acted quickly, and deftly arranged the pose and the light. Consequently there was no need to work on the negative, except, perhaps, to remove accidental blemishes with the aid of the retouching-pencil.

Most young people now-a-days are unwilling to devote the necessary time to fit themselves adequately for the profession they wish to follow. A course of study and preparation which should cover a number of years is crowded into so many months, and the result is mediocrity and inefficiency — a condition which they scorn to admit. Instead of seeking and studying examples of really good work, the average person who is eager to enter the field of photographic portraiture will imitate a poor effort by some other unfortunate. Or, if he really grasp the significance of standard work, he is apt to consider it monotonous and dull, in which case he will try to give it an "individuality" — manifested by crudities or freaks of presentation. Rather should he go back to the earlier days for inspiration and study, provided he succeed in finding the long-forgotten treasures by Gutekunst, Sarony and their peers, and derive from these masterpieces of portraiture some of the knowledge that they express, to acquire which their authors worked with exemplary discernment and patience. Then, having mastered the elements of such a high standard, the young practitioner can inject into his efforts his own personality of feeling and temperament, and in this way develop an individuality that shall be genuine and significant.

In thus counseling budding portraitists, the Editor is reminded of the touching episode in Wagner's opera *Die Meistersinger*, where, in coaching the youthful Walter — eagerly preparing his prize-song — Hans Sachs exhorts him not to forget the old masters, whom he is disposed to ridicule. While observing only in part the rules which govern the admission into the mastersingers' guild, Walter boldly expresses his own fresh and convincing originality and succeeds in winning the much-coveted prize.



# PHOTO-ERA MONTHLY COMPETITION

*For Advanced Photographers*

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition, 383 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of *stiff* corrugated board, not the flexible kind, or with thin wood-rener. Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards — Landscapes with Figures

Closed June 30, 1915

*First Prize:* W. H. Rabe.

*Second Prize:* Mrs. Charles S. Hayden.

*Third Prize:* F. E. Bronson.

*Honorable Mention:* Frank H. Cloud, S. P. Emerick, Louis A. Goetz, A. B. Hargett, Franklin I. Jordan, Warren R. Laity, T. W. Lindsell, Alexander Murray, E. H. Royce, Ford E. Samuel, Elliott Hughes Wendell.

Special commendation is due the following workers for meritorious prints: Henry Ackerman, Beatrice B. Bell, Frank Blum, W. R. Bradford, Edward C. Day, Charles E. Epworth, Margaret Gray, Judson Hayward, Louis R. Murray, F. R. Smalley, J. F. Webster, Alice Willis, Elizabeth B. Wotkins.

## Subjects for Competition

"Clouds in Landscape." Closes September 30.

"Garden-Scenes." Closes October 31.

"Vacation-Pictures." Closes November 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.



Photo-Era Prize-Cup

In deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## Change of Address

MANY of our subscribers wish to have their addresses changed on our mailing-list during the vacation-months of summer. In order to avoid delay in the receipt of PHOTO-ERA, and possible loss in forwarding, we urgently suggest that all requests for changes of address be sent to us before the 5th of the preceding month, as the envelopes must be addressed and classified for mailing on the 20th.



THE LONG FURROW

W. H. RABE

FIRST PRIZE — LANDSCAPES WITH FIGURES

### Garden-Scenes — Photo-Era Competition Closes October 31, 1915

"A GARDEN is a lonesome spot, God wot," and happy he who can wander at will in one of the old-fashioned variety. What a charm there is in the tall, stately hollyhocks, the delicate blue of the larkspur, mingled with deeper shades of monkshood and Canterbury bells! How beautiful are the tapering spires of the foxglove, and the dark velvet of the wall-flower, and sweet William, "the wealth of globed peonies," and the gorgeous-hued phlox!

To have the real old-world flavor the garden should be walled or shut away from the world at large by trees or shrubbery, with perhaps some vista opening upon a distant view. In such a garden the flowers have a background and an appropriate setting that add greatly to their picturesqueness and beauty. With walks of greenest turf, and perhaps a fountain or a sundial, the camera-worker who fails to bring away pictures of value may justly feel the fault to be his own.

In such a garden there is no end to the fascinating combinations of flower-bordered walks, rustic seats or arbors, and distant glimpses of far hills or quiet lawns sloping up to pleasant homes. It is often hard to choose from such a wealth of material, but the same rules apply here as elsewhere, and a center of interest is all important. The eye should find at once some point of rest and not wander aimlessly about the picture-space. Converging lines always help to concentrate interest, and the borders of a walk will serve this purpose very well. The vanishing-point should not be in the center of the picture-space, but well to one side, and, if possible, the lines should lead to some point of interest, like a sun-dial, an arbor, or attractive distant view.

In this kind of garden it often helps to introduce a figure or two, but they must be well chosen and well placed. The ultra-modern child or woman in such a setting would be incongruous. The quaint costume of

"ye olden time" is more in accord with the spicy aroma of the clove-pink in the borders and the stiff decorative background of hollyhocks. The real old-fashioned sort of grandmother would be entirely in harmony with this setting—the kind of grandmother that is associated in one's mind with "lavender and old lace," with caps and full black-silk dresses—not the modern kind, with high heels, scant skirts and a lorgnette!

Not only must the figure be appropriate to the setting, but it must also be of suitable size and rightly placed. If the picture is of the garden primarily, the figure should be small in proportion, and not so conspicuous as to become the predominant thing in the view. Above all things, it should not be posed facing the camera and standing stiffly "for its picture." Two figures might be employed in gathering flowers, one holding the basket which the other is filling with bloom. Some such natural action will harmonize the whole composition and give the desired unity.

If one is so fortunate as to have access to some fine estate that boasts an Italian garden, with its solemn and stately cypress trees and marble benches, its palms, its flowering shrubs, and its statues half hidden in greenery, he may reproduce, with proper figures, the scenes and settings of Boccaccio, and suggest most acceptably the "grandeur that was Greece and the glory that was Rome."

But few of us have available a setting which would enable us to compete with Alma-Tadema, and we must content ourselves with humbler material. If no formal garden is at hand, and one must be content with simply a flower-bordered lawn or conventional "flower-beds," it is more difficult to attain the picturesque; but an observing eye usually can locate some pleasing composition, something which will make a "picture" even when the first impression is unpromising.

The color of the predominant flowers will determine to an extent the lighting to be chosen and the method





SUMMER

MRS. CHARLES S. HAYDEN

of procedure. If the mass of the flowers is white, a time when they are in at least partial shade would be preferable, as in direct sun the effect is almost dazzling to the eye and halation is apt to result in photographing. If, however, the dominant note is red or yellow, the stronger the light the better, and a light color-screen will be needed and orthochromatic plates to bring out anything like proper values, otherwise what looked to the eye the most brilliant note in the composition may be entirely lost in the foliage, for in photographic value green, red and yellow are very similar.

Sometimes a day of misty atmosphere will give you just the desired softness and gray distance to throw into prominence the flowers of the foreground. At other times this result is better obtained by discriminating focus that softens the more distant objects, leaving the foreground full of delicate detail.

In taking long paths the matter of focus is sometimes troublesome. It is better to allow the distance to fall off more or less in sharpness, always keeping the foreground clear; but much "fuzziness," even in the distance, is undesirable in this sort of subject. The swing-

back may often be used to advantage, avoiding the necessity of using a small stop and unduly prolonging the exposure.

Needless to say a day should be chosen when there is little wind stirring, for it is rather trying to one's patience to get ready for the exposure and then have to wait an indefinite time for wandering breezes to die away. It is most surprising and aggravating when some one little branch or spray of flowers will seem to be troubled with St. Vitus's dance, or to have discovered the secret of perpetual motion when everything else is quiet. There is nothing to do but wait with as good patience as one can command, and trust that the sun will not dodge behind a cloud just as the breeze has departed, only to return hand in hand with the sun.

Flower-portraits, perhaps, hardly come under this head, but groups of plants in bloom, or flowering shrubs, should be legitimate if shown in their garden-setting. These are rather more difficult to handle because of the confused background that is likely to result with a lens of little depth of focus. The ugly round white

THIRD PRIZE  
LANDSCAPES  
WITH FIGURES



COUNTRY SCHOOL-DAYS

F. E. BRONSON

spots caused by light through out-of-focus foliage are very distracting, and a small stop is almost necessary that they may be avoided. The small stop, however, lessens the prominence of the main object and lengthens exposure. If a day is chosen when there is a slight fog or mistiness, the matter of background in such subjects is very much simplified, and the flowers stand out in all their beauty.

Perhaps the vegetable-garden should not be ignored, for with a proper figure, in overalls, with hoe or rake in hand, some very picturesque things might be evolved with lettuce and parsley for background instead of roses and lilies.

Do not make the common mistake of underexposing your garden-subjects. The dark greens of the foliage or the red bricks of a wall-background will require very full exposure to bring out proper detail, and if they are given too short a time and forced at all in development you are sure to lose the delicate detail in the flowers which is the charm of a good garden-picture.

The developer should be diluted, and the aim be to secure a soft, rather thin, plate with ample detail, both in highlights and shadows; or, at least, that should be the aim when a good portrait of the garden is the goal toward which you strive. If a study of sunlight in the garden or a late afternoon or early morning effect is to be striven for, then a shorter exposure and more "snap" in the negative will give you more nearly the desired result.

Here, as in all pictorial work, the operator should have clearly in mind the effect he wishes to produce; and let exposure, development and printing all be carried out with that end in view, and success is much more likely to perch on his banner.

KATHERINE BINGHAM.



IN the nude, painted, sculptured, or described, some see only the line of the beautiful; others see always temptation.—*Edmond et Jules de Goncourt.*

### Backgrounds

It is one of the things one has to learn in working with a camera that the lens does not see with the discriminating eye of the operator. It is easy for the mind to see only the well-posed and lighted figure or flower and go no further, entirely ignoring the fact that beyond is some ugly line of a building, or that the lighted profile comes against the sky and will be lost. The lens does not stop with the central object in its delineation, but reveals to the surprised operator all the incongruous background. After a few experiences in finding a tree growing out of his sitter's head, or the aggressive parallel lines of clapboards dominating a picture where he never dreamed that clapboards were, the man behind the lens begins to try to see with the eye of his instrument, and to realize that there is a background to every foreground.

The secret of a successful background is that it should keep its place as a background, and not draw attention from the main subject. To this end some operators use a perfectly plain ground, and if properly used and lighted, it is about as satisfactory as any; but if used with a flat, ungraduated light, it is apt to lack atmosphere and give the figure a "cut out and pasted on" effect. If used at an angle to the light this is done away with and a soft gradation is obtained which is very pleasing.

The background chosen depends largely on the effect it is desired to produce. If the figure is one of graceful lines, and one wishes to show them definitely, then a ground should be selected that will contrast with the color of the costume — that is, a light costume against a dark ground — and vice versa. For real artistic work, however, it is seldom advisable to work on this principle, for a mystery and charm surround the figure that almost loses itself in the background. The "lost and found" line so dear to the painter's heart is just as charming in a photograph, and it can be obtained by using a ground of nearly the same value as the





"WHERE ROLLS THE OREGON"

FORD E. SAMUEL

HONORABLE MENTION — LANDSCAPES WITH FIGURES

dress; then, by judicious lighting, the attractive lines may be accented and the others allowed to blend off into the shadow of the ground.

When an unpleasing figure has to be shown to best advantage this treatment is almost invariably the "least worst," since defects and ungainly lines can be practically obliterated. A plain medium shade of gray ground of ample size is one of all-around utility. It gives a good atmospheric effect, and by turning it toward or away from the light many varying tones may be had.

If one wishes to use a scenic ground, great care must be exercised to have figure and background in harmony. A figure in strong studio-light in front of a scenic background with flat outdoor-lighting looks very out of place, to say the least. If a ground is used that shows a definite light from either side, the figure must be lighted from the same side or be out of harmony. The simpler forms of landscape-grounds are merely suggestive of light through trees or some unobtrusive hint to the imagination that there is something beyond. These can be used occasionally to advantage, but one tires of the same form so often repeated, and a better way, really, is to use a plain ground, and if any variety is desired, work in something on the plate that shall be in complete accord with the particular subject in hand.

Better a perfectly plain ground, however, than one that is too "busy." Many an "at-home" portrait is ruined by this fault. If it is found, however, that some "movement" or variety of tone is needed in the background to give relief to the figure, an easy way of in-

roducing it is to flow the back of the plate with ground-glass substitute — matte varnish — and work up the ground with black lead and a stump. No attempt need be made to draw in any definite objects unless one has skill along that line, but just a little faint clouding of the ground, a little light to throw out the shadow-outline if that is desirable, or a slight lightening of the ground to lessen a too strong contrast — anything to break the objectionable monotony of a too plain solid tone.

When a white ground is used the difficulty is to give the face the prominence it should have. The whole composition should be in a high key, and great care taken with the flesh-tones. The dark accents, like the hair, will be the prominent spots, and care should be taken to have them pleasing in shape and arrangement. A dark ground throws the face into greater prominence and, for that reason, is preferable for character-studies or pictorial effects.

With a standing figure a more complex background may be employed than with a bust-portrait, as the action of the figure calls for a more definite environment and support. More space should be included in front of the figure than behind it, and if the head is bent, there should always be room enough above the head to allow of its being raised without "bumping," otherwise it is likely to look cramped and uncomfortable.

Whatever your type of subject, then, select that ground which will bring out the head most satisfactorily and let all else be subordinate to that.

KATHERINE BINGHAM.

# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department

Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Two Tank-Development Precautions

THIS is the heyday of the tank. Hundreds of thousands of vacationists in every part of the land are returning from their vacations, each with a collection of exposed sensitive material to develop—plates, roll-films or film-packs, as the case may be. The tank offers the quickest, easiest, cheapest and generally most satisfactory way of transforming the lot into printable negatives. But in their haste to see the results of their endeavors, two important precautions are overlooked by many camerists; and this neglect often causes disappointments sometimes laid to other causes.

First, it is exceedingly important that the salts composing the developer be thoroughly dissolved before attempting to use it. Otherwise, particles of reducer or alkali may cling to the sensitive film and cause dark spots. Pyro dissolves very readily even in cold water, but other agents, such as metol and hydroquinone, give more trouble, as do the sodas when somewhat hardened. It is a good plan to dissolve the salts in a portion of the required amount of tepid water, afterward adding enough cold water to make up the proper quantity and produce the right temperature.

The second important precaution is to use a tank that may be reversed end for end, and to be sure to reverse it frequently during the entire time of development. Every salt-solution constantly becomes denser toward the bottom, and this change takes place more rapidly than many camerists realize. In a developer the greater concentration toward the bottom of the tank causes greater and more rapid development of one portion of the plate or film than another. Thus it may be seen that reversal of the tank end for end is essential, and reversal at regular intervals important. Failure in the first instance causes greater density at one side of the negative than at the other, and in the second instance causes streaks of uneven density. In twenty-minute development reversal of the tank every four minutes—four, eight, twelve, sixteen—is none too often, especially with pyro, which stains the negative slightly.

## The Air-Brush on the Negative

THE air-brush, with suitable transparent dyes, can often be used as a quick and effective method of softening undesirable parts of a background, and also as a great help to vignetting. The method described below will be found useful on innumerable occasions, but I will first explain the reason why I adopted the air-brush in place of the usual matte varnish and a lot of tedious knife-work. I had a negative—subject, an outdoor-portrait—and, although pleasing in a way, the eye was arrested and drawn away from the sitter by a very obtrusive, dark, heavy doorway in the distance. It was therefore necessary to soften this, and,

being rather pressed for time, I requisitioned the aid of my air-brush. First, I procured a rough proof from the negative on a matte collodion paper, and, with the aid of a pair of scissors, carefully cut out around the sitter the part of the negative not to be treated. This was used simply as a mask, and placed in contact with the negative upon the retouching-desk. The air-brush was charged with a clear aniline dye and the color sprayed on. As the part of the negative not to be treated was carefully covered with the proof-mask, the actual spraying on of the color required no special precautions, and in the case of this particular subject all necessary work was complete in something under half a minute. With practice and a good idea of the printing-qualities of different colors, a very large scope of treatment is possible; for instance, if you wish to hold back and lighten a part of the picture a great deal, then charge the brush with a deep red dye; whereas if such a great degree is not necessary, then yellow would be more advisable; and, if required, the yellow or lesser actinic color can be graded carefully into the red without much trouble and a perfectly even result be obtained. The reason a matte-surface collodion paper was used as a mask was, if much color has to be applied to the negative, the back of the print would perhaps get rather damp and a gelatine paper might stick to the negative and cause silver-stains.

I have used the method also to vignette a negative: starting at the edges with the red dye and softening inwards towards the subject or sitter with the yellow. I have found the results excellent when a negative with a medium dark ground has to be treated, but should not advise it in the case of a heavy background, as the amount of dye it would be necessary to spray on, being apt to saturate the film, might in this case cause uneven markings. One other advantage of the method is the beautiful appearance of the negatives after treatment, as a variety of colors is so much more interesting than monochrome, and clearly proves to the printer that the poor retoucher does work sometimes, even if his energy does only run to what looks like mucking a decent negative up.—W. L. Amos in *The British Journal of Photography*.

## Squeegeed Prints for Reproduction

ALMOST every camerist, amateur or professional, is called upon sooner or later to make prints for reproduction. In spite of the unquestioned merits of the old gelatine printing-out papers, there are certain advantages in the adoption of gaslight papers, notably in the facts that there is a grade of proper contrast for every printable negative, and that, being without color to complicate matters, the engraver's proof should reproduce faithfully the values of the print submitted. In other words, you can tell exactly what your halftone-reproduction will look like by examining the print from which it is to be made; the engraver





VIEWING THE RAMAPO

T. W. LINDSELL

has no excuse for failure to hold definition and gradation provided the print is smooth, flat and without imperfections of any sort.

A glossy squeegeed print was for long supposed to be the best engraver's copy, and so it is when brilliance and maximum definition are essential. There is, however, a growing demand for good definition combined with greater softness and delicacy of effect, yet without sacrificing a moderate degree of vigor, such as may be seen in L. L. Higgason's "Innocence" in *Photo-Era* for July. Such effects are had on absolutely smooth dead matte paper having no suggestion whatever of luster—so-called semi-matte paper in the lines of several manufacturers. The portrait just mentioned, although first submitted on Eastman platinum, was finally reproduced from a print on Artura Iris, Grade C, a paper possessed of a long scale of gradation and pleasing vigor. Any of the several smooth dead matte papers now available are far superior to the so-called velvet surfaces which are not quite smooth and have a slight sheen which reflects cross-lights and breaks up the halftone-screen.

An absolutely flat print will render the engraver's work easier and more satisfactory in results. This is best ensured by squeegeeing the wet print to a ferrotype plate for drying. Even the dead matte papers are best so treated; for while it gives them no high luster, it renders them absolutely smooth, so that no definition is lost in copying them.

Whether a glossy or semi-matte paper is used, the same method holds. Take the print and place it face down on a properly prepared ferrotype plate. Squeegee it with a rubber roller into absolute contact and allow it to dry over night, or until the paper becomes bone-dry, when the print will peel off readily. To prevent sticking, the ferrotype plate must be washed thoroughly after use and prepared for another time with a solution intended for the purpose. Occasional cleaning with wood-alcohol is desirable. To prepare the waxing-

solution, dissolve ten grains of beeswax in one ounce of benzine. Allow this to stand for several hours, during which a precipitate will be formed. Apply the clear solution to the ferrotype plate with a soft canton flannel cloth, covering the surface thoroughly and then polishing with a piece of dry flannel to remove as much of the preparation as possible.

### Prints for Redevelopment

THE vogue for sepia prints and the popularity of gaslight and bromide papers have made redevelopment one of the most practised processes of photography. It is logical that certain papers should lend themselves more readily to this after-treatment than others, particularly in respect to the final tone obtained, and each camerist soon picks his favorite. The usual difficulty is a too-yellow tendency. However, entirely aside from the matter of color, there is another frequent cause of indifferent results. The character of the subject and that of the negative and print have an important influence. Extreme contrasts are to be avoided, for the tendency is for the highlights to bleach and the shadows to block up, whereas a print of shorter scale and better gradation, yet pleasing vigor, will retain its values intact while undergoing a change of color.

It follows, therefore, that in making the negative exposure must be ample for the shadows, followed by development for the highlights. The danger is that development will be carried too far. In printing, also, it is important that the grade of paper suit the negative. A contrasty subject or negative demands a soft-working paper; far too much contrast-paper is now in use, especially when one considers the fact that the average amateur negative is underexposed. The adoption of buff paper tints the highlights and serves to offset any tendency toward loss of detail and gradation in the highlights, at the same time producing a richness of effect impossible in any other way.

# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

## Photographing Waterfalls

THERE is little in nature that has a greater charm than the cascade or waterfall. It is a magnet that draws all eyes, and holds the attention as does an open fire in the winter evenings. One charm of the waterfall is its usual location in the woodland shadows, where it splashes down over the rocks, sprinkling with diamond drops the ferns that hang above it.

No owner of a camera could possibly pass by such a picture without trying to take home something of its beauty; but, alas, it is one of the hardest scenes to photograph successfully that could possibly be found. The usual amateur picture of a waterfall shows either blank white paper where the sparkling water should be, or else, depicting the tumbling water to perfection, it shows nothing more, the surroundings having entirely failed to make their impression on the plate. In the first instance too long an exposure has been given in order to get detail in the dark surroundings, and the moving water has become hopelessly blurred and void of crisp detail; or a similar effect might result from slight underexposure, so forced in development that the highlight detail has been clogged and lost. The second plate, where only the water comes out, is, of course, a case of underexposure.

It may be that by close observation a time may be found when the cascade and its surroundings will be well lighted, if in the woods a time might even be found when some near-by tree casts a shadow on the water itself, leaving the banks in sunlight. Such a chance is almost momentary, and must be seized instantly. If such good fortune should not befall, however, a time should be chosen when as full an illumination as possible may be obtained, and, using a large opening, give a medium exposure, trusting to careful development to assure results. In the comparatively open woods of spring an exposure of one-fifth second with U. S. 8 stop and a film of average rapidity give very good results; but when the foliage has darkened and thickened with the coming of summer the time should be lengthened somewhat.

It is not always, however, that one can wait for a proper illumination, and the exposure must be made under existing conditions. In such a case the only thing to do is to give as long a time as one dares, probably not over one-half second, in order to secure all possible exposure of the surroundings without losing the water-detail, and then work it out in developing. If the exposure is thought to be short, have ready a ten-percent solution of bromide and a soft brush. Use a dilute developer and, when the outline of the fall can be seen, rinse the plate and paint over the space covered by the waterfall with the bromide solution, returning at once to the developer. This will tend to retard the action of the developer locally. If, when the

detail is out in the surroundings, the water is still too dense, local reduction will have to be resorted to.

When the negative is thoroughly fixed place it in a tray of water and, lifting one edge, go over the dense parts with a brush wet in Farmer's reducer, letting the plate slide under the water occasionally to avoid a line and keep the reducer from affecting parts that do not need its action. If this is carefully done and the exposure has not been so long as to blur the detail too much an even-printing negative should result, with detail both in highlights and shadows.

If a large fall is to be taken, or one that is in the open and unshaded, the danger is of over- rather than underexposure, though even here too short an exposure, one of less than one twenty-fifth or possibly one-fiftieth, will "freeze" the spray and give the effect of ice-particles. The focal-plane shutter is an ideal one for taking a fall in shade; but if used in the more-exposed location the lens must be used at small aperture to allow enough time to avoid the petrified effect.

If one uses a developing-paper, some grade can be found to give a good print from almost any type of negative. After all one's efforts, should the plate still have too great contrast, that is, if the shadows print too dark before the detail is out in the lights, one of the soft-working papers, printed by daylight, may give a surprisingly good print; whereas, if the reverse is true and there is not enough "snap" and crispness in the plate a hard-working paper will do wonders.

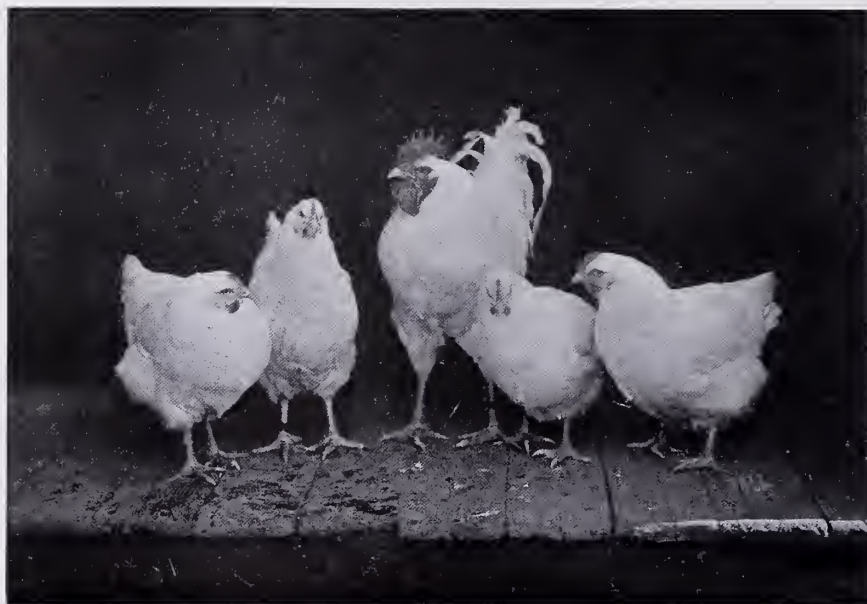
Do not despair, then, though the negative is not all that might be desired. It is the finished print that is the goal, and even a seemingly poor plate can sometimes be made to yield a print most acceptably portraying the scene as you beheld it. If one has clearly in mind from the beginning just the sort of effect one wishes to produce, it will help very materially toward securing a satisfactory result.

## The Portrait-Attachment

THERE are many times when the user of a small hand-camera feels the need of obtaining a larger image than is possible with his unaided instrument. Perhaps he has been so fortunate as to discover a rare flower, or bird's nest, or he wishes to take a bust-portrait of a friend; and as the shortest distance at which his lens will give him sharp definition is six feet, it is not possible to obtain an image of satisfactory size.

The portrait-attachment gotten out by the Eastman Kodak Company is to meet just this requirement. It is merely a supplementary lens to be slipped over the front of the Kodak lens, enabling one to get a sharp image at a distance of two to four feet. With fixed-focus cameras the distance with the attachment is three and one-half feet; but for the Kodak with a focusing-scale the distance may be varied.





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E. D. LEPPERT

The shortest distance which produces the largest image is two feet eight inches, and to obtain a sharp image at that distance the focus should be set at six feet. The distance should be measured accurately from lens to subject, and a tripod used to be sure of stability. The view-finder cannot be depended on at so short a distance, so one should be sure that the object is nearly central, knowing that the finder shows much more than will be included on the plate.

For bust-portraits be sure that the camera stands level and that the lens is on a level with the sitter's mouth. This will give you the correct height. The direction may be determined by sighting over the back of the camera till the face of the sitter and the lens are in line with the center of the camera-back.

A certain amount of increase in size may be obtained without the attachment if the Kodak be of the focusing-type. To do this, proceed as follows: remove the back as when changing films, and place the camera on some firm support. Take a piece of ground-glass and place its rough side toward the lens and resting against the rollers over which the film passes, holding it in place by rubber bands. If ground-glass is not available, a piece of tissue-paper may be used if held smoothly and tightly in place. Now focus sharply on some object at an accurately measured distance of three feet, and mark on the camera-bed just where the pointer comes. Do the same for an object at  $3\frac{1}{2}$ , 4,  $4\frac{1}{2}$ , 5 and  $5\frac{1}{2}$  feet. You have now a focusing-scale beginning where the original scale leaves off at six feet and continuing to three feet. Of course, the image at such short distances is sure to show some distortion; but for flower-work, etc., it is not bad.

### Let the Manufacturer Do It

PHOTO-ERA is often asked to publish and supply by mail formulæ for making flashlight-powder. This we have consistently refused to do, and in each instance

have advised the applicant to adopt one of the several splendid powders already on the market. The compounding of flashlight-powder is no less hazardous than that of gunpowder, and should be attempted only by an expert in a suitable place; for the novice has no right to endanger the safety of others nor that of himself. The following, from a St. Louis paper, June 3, is one of many instances to justify our action:

"George S. Hyde, a photographer, was seriously injured yesterday while mixing nearly a pound of flashlight-powder in the cellar of his home. The powder exploded spontaneously, and as Hyde was unconscious when rescued he was at once rushed to the hospital. The explosion partly wrecked and set fire to the house, the damage amounting to \$700. Hyde died June 6."

### Printing from Wet Negatives

Two devices which I use when prints are wanted in a great hurry, writes Mr. G. W. Wharton in *Photography and Focus*, may not be so well known as they deserve to be. One is to interpose between the wet negative and a piece of bromide paper a sheet of thin, clear celluloid. This should be two or three inches larger each way than the negative. The negative is taken from the hypo, held under the tap for half a minute, and is then laid down, wet as it is, on the plate-glass of the printing-frame. The celluloid is laid over it, then the bromide paper, and a print is made there and then. It is developed and fixed, washed, and is then trimmed and mounted while still wet. To trim it, I place it on a piece of waxed paper, then the straight-edge, and cut through the print and waxed paper at the same time. There is no difficulty in doing this, provided always that the knife is a sharp one. The print and paper are then turned over, adhesive is applied, and the print is rubbed down into place on the mount. The waxed paper may then be peeled off and the print set up to dry.

# THE ROUND ROBIN GUILD MONTHLY COMPETITION

## For Beginners Only

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

### Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

### Prizes

*First Prize:* Value \$5.00; *Second Prize:* Value \$2.50; *Third Prize:* Value \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "General"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

### Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. Criticism on request.*

4. *Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what contest it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer. Large packages may be sent by express very cheaply and with indemnity against loss.

### Awards — Beginners' Contest

Closed June 30, 1915

*First Prize:* E. D. Leppert.

*Second Prize:* Harry Prest.

*Third Prize:* Myra D. Scales.

*Honorable Mention:* Gertrude Bennett, Pierre S. Boisse, F. G. Hammond, Harlan C. Lang, Charles D. Meservey, Louis R. Murray.

Special commendation is due the following workers for meritorious prints: S. A. Chapman, William J. Harris, Agnes B. Hawkins, R. Krueger, Oscar C. Kuehn, Dr. Maclay Lyon, William H. Rice, Guy E. Osborne, Mrs. H. G. Reed, Edith M. Root, C. Howard Schotofer, Fred W. Sills, J. Douglas Smith, Kenneth D. Smith, W. Stelcik, Robert B. M. Taylor, J. W. D. Thompson, A. J. Voorhees, Kathryn F. Wotkins.

### Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed to the Guild Editor for criticism will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links. To compete with others puts any one on his mettle to achieve the best that is in him, and if, in competing, he will study carefully the characteristics of prize-winning prints every month, and use the Guild correspondence privilege freely, he cannot help but progress.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

**W. H. E.—“Artistic Lighting,”** by James Inglis, with a chapter on “Home-portraiture,” by F. Dundas Todd, was published in 1905, at fifty cents, and is out of print. We have tried to obtain a copy for you, but without success. Several years ago a subscriber procured a copy through a classified advertisement in PHOTO-ERA (\$1.20), but we do not remember how much he paid for it. Copies are quite rare.

**W. H. E.—Drying glass negatives or film negatives** should be done in a room of even temperature. If the same is changed suddenly you will have so-called “drying-marks;” i. e., the portion of the negative which dried last will differ in density from the rest. This explains the trouble in your glass negative. The small transparent elliptical marks are due to so-called “tear-drops”—drops of water which accumulate during the process of drying. They can be avoided by carefully wiping the negative with a tuft of absorbent cotton before placing it away to dry. This sometimes happens also on glass negatives. A negative dried in a warm temperature is denser than one dried in a cold temperature.

**B. D.—The F-numbers of lenses**, such as F/7.5 and F/6.3, indicate the working-aperture of the lens at which good definition may be had, and hence the speed of the lens. The numbers themselves indicate the quotient resulting from division of the focal length by the diameter of the largest diaphragm-opening. Thus, F/7.5 means that the diameter of the diaphragm-opening is contained in the focal length 7.5 times; also it may be seen that the smaller the number the larger the relative working-aperture and the shorter the necessary exposure. As a higher degree of correction is required for rapid than slow lenses, their cost is higher. Considering the lenses you mention, knowing that their relative speed is in proportion to the squares of their F-values, the F/6.3 lens will require 40/56 or 5/7 the exposure required by the F/7.5 lens.

**F. C.—A tripod is always of value**, irrespective of the type of camera, for a firm, steady tripod keeps the camera from partaking of the movement of the body or hands of the operator. No other should be accepted from the dealer. Of course, care must be exercised in

operating the shutter when there is no pneumatic- or cable-release, but it can be done successfully if the tripod is a good one.

There are several 1A Premos, so we cannot speak definitely, not knowing which you have. **It is not practical to put a cable- or pneumatic-release on a box-camera**, but it may be done on most folding cameras, including the Premoette Jr., by supplying a new shutter. Of course, cameras having only one snapshot speed are of limited usefulness, and many subjects must be given up because it is impossible to expose correctly. A good shutter with a variety of speeds increases the price of a camera considerably, as you will see by consulting any catalog; but such an outfit is worth the price, and any camerist makes a mistake to buy any other, for correct exposure is more important than any other detail of the photographic process. It is the basis, and most other items of the work may become purely mechanical as well as not.

The film you enclose appears to be properly developed, but is not rich in shadow-detail, which suggests somewhat shorter exposure than might well have been given. The marking on the negative appears to be light-fog from one of two leaks, either in the folds of the bellows or a loose joint in the back; but not knowing the exact camera you have, we cannot tell positively. There is no way to remove the fog from the negative satisfactorily.

**W. M.—**Your question seems to imply the belief that the lens-stop should vary with the condition of light. This is the case with small, inexpensive cameras; but it is not the ideal condition, for it gives no opportunity to make a distinction between detail and definition, the former being something that is exposed for and the latter something that is stopped down for. In the highest form of photographic work **the stop is put in the lens quite irrespective of the exposure**; its purpose is to regulate depth of focus, separation of planes, and the degree of definition. Correct exposure according to the condition of light is preferably regulated by the shutter-speed.



STONE BRIDGE

HARRY PREST

SECOND PRIZE — BEGINNERS' CONTEST

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

G. M.—Your print entitled “Woodland Path” is faulty in lighting. It is usually desirable to choose such a viewpoint that the sunlit areas will not be in the immediate foreground, but rather in the middle-distance or the background. Unless particularly interesting material attracts elsewhere, the tendency is always toward continued observation of the foreground, to the exclusion of anything beyond. Were there prominent sunlight in the middle-distance or distance the eye would immediately travel along the path to it.

H. P.—“A Vista of Light and Shade” provides a subject which is well worth doing over again. Indeed, we have seen a dozen negatives made at various points about this pool all of which were well-composed pictures; but, unfortunately, your print is technically defective. It is greatly underexposed, and apparently the development has been forced. The result is far too contrasty; and the solid black tree-trunks are very far from what the eye actually sees.

J. B.—You have an attractive subject, but it is too spotty in the print, with many scattered lights and nothing to hold the interest. A slightly different hour might have removed the brilliant sun-spot from the foreground, leaving that in the distance along the stream. Double the exposure given, followed by shorter development, preferably with a soft-working developer

such as metol, pyro-metol, or eiko-hydro would have given a lower tone to the sun-spots, more shadow detail, and transparency to the tree-shadows. Try printing this negative on a soft-working or portrait gaslight paper, and you will like the result better.

W. H. S.—“Strawberry Creek” does not have quite the sharpness of definition desirable in so small a print. Apparently the most distant shrubbery was focused upon, rather than the prominent trees in the middle-distance. The print has too much foreground anyway; and as it is brightly lighted, trimming half an inch or more from it will prove beneficial. Your subject is an attractive one, and we suggest making another negative with the critical focus on the trees.

H. S.—Your print is of the sort which is of great interest to the parents of the child. The chief fault is the disturbing background, which attracts almost more attention than the child. Otherwise we have no criticism to offer, as the subject is well spaced and the technical work excellent.

M. M. S.—“Gretchen” is a very attractive subject and well posed, particularly the hands, which convey an impression of spontaneity. Unfortunately, however, the negative appears to have been rather too strongly developed, with the result that the scattered highlights are much too white and the whole effect is spotty and without unity. Also, we believe that slightly sharper definition in so small a print would improve it.

B. C. G.—The peculiar appearance of the face to which you refer is due to the use of a short-focus lens and a pose of the sitter, both of which combine to create an exaggerated effect of foreshortening. With a lens of longer focus it is not necessary to approach the sitter so closely in order to obtain a head of ample size, and better perspective is had.

T. B.—The photograph of your home is technically excellent and in certain ways well composed, but a different lighting will give character to the subject. Why not choose a morning lighting when the sunlight, shining diagonally through the rose-covered trellis, will

cast a picturesque shadow upon the broad expanse of stucco wall-surface between the windows? Architects depend upon shadows as well as decorative detail for the ornamentation of houses such as this.

F. B. N.—Your ideas for window-portraiture are excellent, but your technique is faulty, due to halation. In the July and September issues you will find articles by experts dealing with this problem. Both schemes will yield pleasing results, so you can choose the one best suited to your conditions of work.

G. N. M.—The leaden appearance of your sky is due to the use of a very deep color-screen. An eight-time screen is unnecessary except for commercial work, such as furniture, fabrics, pottery and the like, in which absolute values are required. In landscape a three- or four-time screen is plenty deep enough.



THE OLD APPLE-TREE

MYRA D. SCALES

THIRD PRIZE — BEGINNERS' CONTEST



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

*These figures must be increased up to five times if the light is inclined to be yellow or red.	MONTH AND WEATHER																			
	JAN., NOV., DEC. †					FEB., OCT. ‡					MAR., APR., AUG., SEPT. ¶					MAY, JUNE, JULY §				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
	‡Latitude 60° N. multiply by 3; 55° × 2; 52° × 2; 30° × $\frac{3}{4}$ .	‡Latitude 60° N. multiply by 2; 55° × 2; 52° × $1\frac{1}{2}$ ; 30° × $\frac{3}{4}$ .	‡Latitude 60° N. multiply by $1\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .	‡Latitude 60° N. multiply by $1\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .	‡Latitude 60° N. multiply by $1\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .															
HOOR																				
11 A.M. to 1 P.M.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
10-11 A.M. and 1-2 P.M.	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
9-10 A.M. and 2-3 P.M.	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$1^*$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$
8-9 A.M. and 3-4 P.M.						$\frac{1}{5}$	$\frac{1}{2}$	$1^*$	$1\frac{1}{2}$	$3^*$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
7-8 A.M. and 4-5 P.M.											$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
6-7 A.M. and 5-7 P.M.											$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1^*$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
5-6 A.M. and 6-7 P.M.																$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	$1\frac{1}{2}$

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky ;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground ;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground ;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground ;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade ;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks,** ravines, glades and under the trees. **Wood-**  
**48 interiors** not open to the sky. **Average indoor-portraits** in a well-lighted room, light surroundings.

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number  
in the third column

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.	U. S. 1	F/4	× 1/4
	U. S. 2	F/5.6	× 1/2
	U. S. 2.4	F/6.3	× 5/8
	U. S. 3	F/7	× 3/4
	U. S. 8	F/11	× 2
	U. S. 16	F/16	× 4
	U. S. 32	F/22	× 8
	U. S. 64	F/32	× 16

## Example

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 p.m., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply 1/16×4=1/4. Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class. 1/16×1/2=1/32. Hence, the exposure will be 1/32 second.

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.  
Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 128, Wy. 250, Wa.  
Anso Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.  
Anso Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid  
Seed Color-Value

Class 1, P. E. 111, Wy. 180, Wa.  
American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter  
Imperial Ortho. Special Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film and Blue Label  
Marion P. S.  
Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.  
Cramer Banner X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.  
Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 84, Wy. 160, Wa.  
Cramer Anchor

Lumière Ortho. A  
Lumière Ortho. B

Class 2, P. E. 78, Wy. 120, Wa.  
Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.  
Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Hammer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.  
Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.  
Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Halftone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.  
Lumière Autochrome



# OUR ILLUSTRATIONS

WILFRED A. FRENCH

THE significance and sentiment expressed in the initial picture of this issue, and repeated on page 136, will be apparent to many. The business-man of New England's metropolis whose office is on Boylston Street, east of Copley Square, and who upon leaving it for the day, late in the afternoon, turns toward the west, will frequently behold a striking spectacle. Instead of being clear, the western sky will be filled with vast masses of cumulous clouds through which the sun is trying vainly to force its way. The scene that is presented suggests a colossal conflict. One giant-form hurls itself upon another. The onset appears to be tremendous. Scarcely has it begun, when it is ended. The rioters have vanished and two other aerial monsters are at each others' throat — tearing, turning, swallowing, transforming, when with amazing swiftness, they, too, have disappeared, only to be replaced by others. And thus, for hours, the struggle continues to rage with sustained ferocity and obliterating destructiveness. By and by there is an abatement of the titanic fury, and gradually the turbulent phantoms assume a less terrible mien, and are transformed finally into placid-looking shapes, which range themselves in immense latitudinal strata lower in the heavens. Suddenly all begins to glow with a warm rosy light, which is joined by sister-colors — yellow, orange, red, purple, of wondrous purity and brilliance, all flaming, burning, radiating in a burst of glory that proclaims the infinite power and love of the divine Creator.

"'T is the sunset of life gives me mystical lore,  
And coming events cast their shadows before."

So, look well to the West!

The lofty tower is the work of man — the mason, the builder, the architect. It symbolizes, however, terrestrial force, temporal, waning. Though erected less than five decades ago, by strong men and true, it soon began to manifest structural weakness by forsaking the perpendicular, until to-day it is already several feet out of plumb. All the same, this massive campanile, a feature of the adjoining sanctuary, forms an appropriate foil to agitated cloud-land. Data: Tower of the New Old South Church, Boston, U. S. A.; taken from the top of a nearby five-story building; September 15, 1914, 3.30 p.m.; cloudy; 3A Autographic Kodak; Kodak Anastigmat lens; stop, U. S. 8; lens-front raised; no color-screen;  $\frac{5}{50}$  second; Eastman Speed Film; pyro-soda; 8 x 14 P. M. C. Bromide print. — "Look well to the West!"

The graceful American elm, whose portrait forms the frontispiece in this issue, is a familiar landmark in a very charming section of the state of New Hampshire. The picture, which is a typical New England landscape, seems to fit the lines of the poet, and is the product of an enthusiast who, in his younger days, was a successful professional portrait-photographer. Retired from business, Mr. Church devotes himself to the most delightful of all pastimes in a purely amateur way. In his practice, he uses exclusively an 8 x 10 plate-camera; for, he says, that there is an inexpressible satisfaction in studying the picture on the ground-glass, instead of etching it through a finder; of loading the "sizeable" plateholders, and, above all, in watching the development of the image — the gradual appearance of the

highlights, and the various objects that go to make the picture as you saw and composed it. The same degree of pleasure is associated with the printing: the up-building of the positive result and the knowledge that, when you are giving away a mounted print to a friend — Mr. Church will not sell a print — or framing one for mural decoration, you have the straight product of your camera, something that speaks to you in language that is intimate, sincere and direct. The weight of the equipment? That seems negligible to our artist, who is vigorous, physically as well as mentally, and, moreover, has an automobile. *Voilà!*

The picture is well composed and manifests a sound knowledge of technical methods and the maker's unbounded love of nature. Data: October, 12 M.; sunlight; 8 x 10 Universal View-Camera; No. 3 Darlot Rapid Hemispherical; 11 $\frac{1}{2}$ -inch focus; stop, F/16; Ingento A ray-filter; Seed L. Ortho; pyro; 8 x 10 platinum print.

In the assisting illustrations, pages 113 to 118, W. S. Davis sustains his reputation for the artistic selection and treatment of pictorially modest material. Data: "Sheltered Cove," page 113 — August afternoon; 6 $\frac{1}{2}$ -inch single achromatic lens; stop, F/11;  $\frac{1}{30}$  second; Cramer Inst. Iso. 3 $\frac{1}{4}$  x 4 $\frac{1}{4}$ .

"A Bit of Noank," page 114 — 11.40 A.M. in summer; bright, soft sunlight; stop, F/6.3 and ray-filter;  $\frac{1}{30}$  second; same plate. The picture was taken along the shore-front, looking towards the village.

"Approach of Evening," page 115 — Late August afternoon; good light; 6 $\frac{1}{2}$ -inch single achromatic; stop, F/11;  $\frac{1}{60}$  second; same plate.

"On the Ways," page 116 — August, 11.10 A.M.; faced light of diffused sunshine; stop, F/16;  $\frac{1}{2}$  second; same plate; clouds printed in.

"The Drying Sail," page 116 — December, 10.40 A.M.; sun breaking through thick fog; stop, F/6.3; Ingento ray-filter;  $\frac{1}{5}$  second; same plate.

"Winter-Quarters," page 117 — 9 A.M.; diffused sunshine; 7 $\frac{1}{2}$ -inch R. R. lens; stop, F/11; Ingento A ray-filter;  $\frac{1}{2}$  second; same plate.

"Old Wharf," page 117 — 12.20 P.M.; soft sunshine; Ilex Anastigmat; stop, F/6.3; Ingento A ray-filter (4-times);  $\frac{2}{5}$  second; same plate; clouds printed in.

"Off Hoboken," page 118 — Taken from steamer on Hudson River at 4.45 P.M.; cloudy summer-day; stop, F/6.3;  $\frac{1}{100}$  second; same plate.

Simple, straightforward and clear, like an example of the elementary principles of composition, appears the study in chiaroscuro by Ward E. Byran, page 121. The picture teaches a lesson to those camerists who are often confronted with the problem of disposing of a number of trees placed promiscuously in the picture-field. It is not always possible to get anything like a satisfactory arrangement out of a disorderly cluster of trees, and the smaller the number to deal with, the better; but a careful study of the locality, and the possibilities of light and shade, will enable one to get a much better composition than the first survey might indicate. Mr. Byran's picture received official recognition in the PHOTO-ERA contest of Park-Scenes. Data: September 28, 4 P.M.; 4 x 5 plate-camera; Gundlach-Manhattan lens, 8-inch focus; stop, F/11; B. & J. ray-filter; Cramer Medium Iso; pyro; 6 x 9 print on Normal Plat. cyko.

Suisai Itow, on page 126, has given us a typical and engrossing picture of the life of budding capitalists. The air of boyish ingenuousness has been capitably interpreted. Of course, the arrangement of the figures with a view to effective lighting, and the general technical management are worthy the highest praise. No data.

The series of subjects that accompanies the article by H. G. Cornthwaite, pages 127 to 129, conveys an excellent idea of the character and sights of the country of the Panama Canal. The viewpoints have been chosen with expert discretion, and the camerist who intends to visit this important possession of Uncle Sam — the sooner, the better — may photograph them in his own individual way. Data: Camera used, 3A Eastman Kodak with  $6\frac{1}{2}$  R. R. lens, and 3A Salex with 6-inch Goerz Dagor. "Low Tide" and the scenes along the Panama Canal were made in October, the rest in February and March; generally bright light prevailed; time-exposure made at 11 A.M. and 1 P.M.; Eastman Kodak Film; developed in Eastman tank; printed on Azo grade C; exposures  $\frac{2}{5}$ ,  $\frac{5}{10}$  and  $\frac{1}{100}$  second; no color-screen.

Those who were fortunate to witness the play "The Man from Home," as given five years ago, will doubtless remember Madeline Lewis — or, as her name appeared in the program-book, Madeline Louis — who assumed the leading juvenile part, Ethel Granger-Simpson. Few actresses of her youth and beauty have convinced the public of their personal purity of character and sweetness as did Miss Louis. In his portrait of the young woman, Mr. Champlain has successfully preserved her charming personality and purity of countenance. The artist has also exemplified his pleasing individuality of arranging the hands. Mr. Champlain has made a profound study of this department of composition, where he is said to be unrivaled. He is sole proprietor of the Champlain Studios, Boston, formerly Champlain and Farrar. No data.

Among American pictorialists of to-day, William H. Zerbe takes high rank, although of late his work has not been on exhibition. Mr. Zerbe is one of the instructors in the department of photography at the Brooklyn Academy of Art and Sciences, where his ability is fully appreciated. The two pictures, pages 137 and 138, which help explain his method to prevent halation, bear witness to his artistic and technical knowledge. Data included in the article. We learn with interest that Mr. Zerbe is conducting very successfully a department for the benefit of amateur photographers in the magazine section of the New York *Evening Mail*.

## Photo-Era Monthly Competition

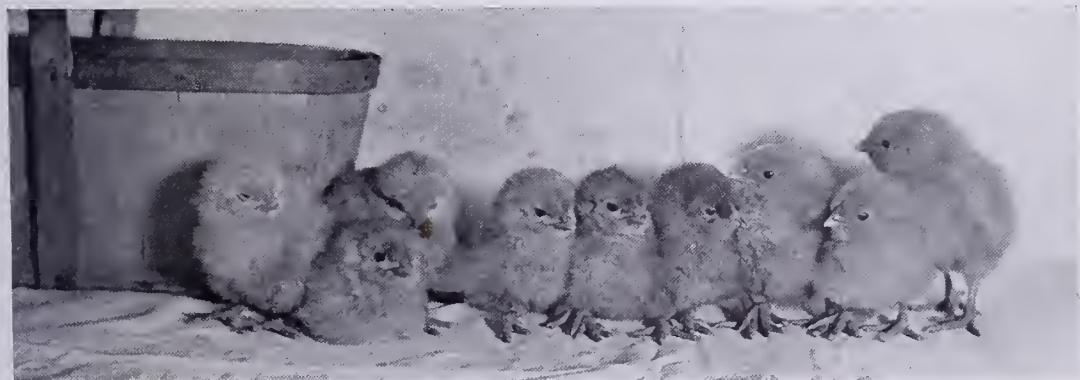
Music as one of the fine arts is a very convenient standard of expression with which to compare pictorial photography. The parallel has been used quite often in this department. But it is very difficult to make sticklers for technical excellence to understand that a demonstration of brilliant virtuosity, pure and simple, is less admirable than a performance that stirs the emotions and the imagination, though not free of occasional technical blemishes. Rubinstein was known to strike a wrong note or an uncalled-for discord occasionally, and Remenyi was not always reliable with regard to intonation. Yet technique has got to be mastered, for without it great achievements are not possible. Thus it is that the purely artistic performance appeals to one's emotions, whereas the exclusively technical rendition leaves one cold.

The entries in the Landscapes with Figures competition were not lacking in numbers, but in imaginative qualities. Most of them told a story, but it was expressed in uninteresting, commonplace terms. Not a few employed the popular theme, ploughing, but made little of it. It was a bare record of fact, with due attention to excellence in workmanship. There were landscapes in which figures were placed without any apparent purpose. To introduce the human element and make it an inseparable part of the picture, is not so easy as it may seem; but those who made the attempt, and did not succeed, have no reason to be discouraged. They will gain in experience, breadth of vision and pictorial understanding, so that with a similar competition in view they will be better prepared.

Mr. Rabe, one of the foremost pictorialists on the Pacific Coast, again carries off the highest honor, and deservedly so. Page 141. The design is one of exceptional beauty and artistic significance. It will repay analysis. The great diagonal line, designated as the "Long Furrow," is the keynote of this masterly composition. The view beyond is placid, simple and harmonious, and diminishes, while it recedes, discreetly as planned by the artist. The picture is an admirable study of line. Data: June, 1915, 5 P.M.; sun and fog; 1A Kodak; open lens;  $\frac{2}{5}$  second; Eastman Film, M. Q., enlargement of Bromide paper with Smith soft-focus small lens.

The graceful and refined figure and attractive setting, page 142, form one of the happiest pictorial accomplishments that ever emanated from Mrs. Hayden's portfolio.

(Continued on page 161)



CHICKS

HONORABLE MENTION — BEGINNERS' CONTEST

LOUIS R. MURRAY



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## Snapping Persons in the Court-Room

DURING the examination of Mrs. Wilde, divorced wife of Henry Siegel of department-store fame, in New York, several months ago, a camerist figured quite prominently. As the woman was testifying with regard to the expenditure of the money Siegel had given her, a photographer took a snapshot of her, and she protested vigorously. Turning to the referee, she exclaimed: "Your honor, I ask your protection. He's taken a picture of me. He's got it in his pocket. I demand that he be made to give it up!"

Mrs. Wilde sprang up, and an uproar followed. The depositors present were woefully unsympathetic, calling out: "Why should n't you have your picture taken?" "Keep your camera, young man!"

One woman began to weep with excitement, and another shouted that she had her picture taken at Siegel's trial at Genosco, and why should not Mrs. Wilde's be taken, too?

It was several minutes before order could be restored. The referee made the photographer give up the photographs he had taken—a plateholder containing the exposures. There was talk of having him taken before the court for contempt; but as the referee expressed his doubts, the matter was dropped. As nothing has been heard of the troublesome pictures, it is possible that the plates were underexposed.

## Incomplete Photo-Illustration

OBEDIENT to the request of a friend, I spent a good half-hour at a book-store the other day in search of a handy tree-guide with photo-illustrations of the trees in full foliage. I was not successful. A voluminous work, by Britton, enumerated all the trees in America, together with all scientific data. Each species of tree was accompanied by a well-drawn outline sketch of leaf, blossom and fruit; but there were few pictures of a complete tree to enable one to identify it in that way. Photography evidently played no part in the composition of this magnificent and expensive volume.

Of handy pocket-guides I found several. One of these contained a photo-illustration of the leaf and bark of every tree mentioned. Occasionally there was a photograph of the entire tree—and even then only a winter-view, without leaves. The rest were similar in character, but none seemed to fill my needs.

Here, then, appears to be an opportunity for some camerist, a nature-lover, to make a collection of photographs of all the trees that grow in America—or in the country most convenient to the reader—together with the corresponding leaves, blossom, fruit, character of the trunk, tree in full foliage and in the leafless form. It seems that such a collection of prints would be welcomed by almost any first-class publisher.

## The Eyes in Portraiture

THE sight of so many portraits and figure-studies in which the model, posed in profile, shows the white of the visible eye, *but no pupil*, moves me to suggest a way to correct this faulty way of directing the eyes. Hence the editorial, "The Lessons of the Past," in this issue. Merely posing the head of the model so that it

shall present a side view, and letting the eyes look in the same direction, is not enough. Already the pupil of the available eye has nearly disappeared. The rule is that, with the head remaining in the same position, the eyes be turned considerably toward the camera, so that more than one-half of the pupil may be seen by the lens. Let the novice in portraiture try the experiment and he will be convinced.

A person facing the camera, and represented in the act of reading a book which is held low looks as if his eyes were closed. Why? Simply because the novice does not know how to manage the eyes during such a pose. Without disturbing the position of the head, ask the model to look at a spot beyond the book, which will be about four inches nearer the camera—according to the distance of the model—and, all at once, the desired effect has been attained; namely, that he is actually reading.

## No Poor Postcards for Photo-Era Readers

THE Publisher is always glad when he can print conscientiously an advertisement which will prove of positive benefit to the readers of PHOTO-ERA. His strenuous opposition to goods, persons or methods of an undesirable character is well known. So when a postcard concern new to the business-world sent him an advertising-contract several months ago, he made his customary inquiries, and although the firm's financial integrity appeared satisfactory its product seemed otherwise. The specimen postcards sent to him in response to a formal request indicated a very low grade of workmanship, whether plain or colored, and certainly not of the kind that would satisfy a consumer of discriminating taste. The Publisher therefore returned the contract and politely explained the situation. No unfriendliness exists between us in consequence, because the postcard-publisher found no trouble to advertise his business in other magazines.

## A Handy Device for Matching Colors

MEETING my friend H. — known for his perfect taste in the matter of dress—in the street one day last spring, I was astonished at his wearing a cravat of very brilliant blue. Noting my puzzled look, he explained it by saying: "Am I not a good sport? Bought a couple of expensive neckties at a mark-down sale recently. Selected a dark and quiet shade of blue of which I am very fond. It looked all right to me under the electric light, and there was no other way to tell. Discovered my mistake this morning, but decided to see what my friends would say. I see I can't get away with it!"

This gave me the opportunity to suggest the use of a color-chart, which I had found very convenient. On a piece of white bristol-board, about  $2\frac{1}{2} \times 4$  inches, I pasted little squares of colors—representing my favorite shades—cut from a color-chart which accompanied my box of water-colors. I also made one containing small pieces of silk and satin cut from discarded neckties. One of these I carry in my card-case, and when in doubt about the shade of a tie I am selecting—no daylight being available—I simply compare it with my handy color-chart. I am no longer at the mercy of the deceptive electric light.



# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## Annual Convention of the Photographers' Association of America

At Indianapolis, July 19 to 24, 1915

THE thirty-fifth convention of the P. A. of A. will go on record as an ethical affair, and the men who were imbued with a desire to place the profession upon a higher plane, and to labor in the interests of the National Association by means of a code of ethics to be adopted by each individual member of that body in his daily business, deserve the gratitude of all. Of sincere resolutions and promises to make the association a practical and perpetual means of improvement and protection of the craft, there were many — more, perhaps, than have been expressed at any previous convention. However, this cannot be regarded as an innovation, for the records show that similar words for the betterment of the photographic profession have been uttered and emphasized at many annual conventions of the National body during the past 40 years; but owing to many causes, including regular changes in the executive board, they were soon forgotten and nothing was done. It is to be hoped that the praiseworthy resolutions made at Indianapolis, this year, will bear fruit. To a cancerous body, one generally applies the knife, rather than absent treatment; nevertheless, we shall see what time will bring forth. It is also to be hoped that the code of ethics adopted at the convention amid tremendous enthusiasm will be taken seriously, not only by members of the association, but by those who rarely attend conventions. It were better, perhaps, had provision been made to reduce the number of individuals who use photography in an illegitimate way, who work in defiance of recognized standards of honesty and decency, and thus stigmatize an honorable profession.

The association is to be congratulated in the selection of a leader who is an honor to the profession and who enjoys the utmost confidence and respect of the entire craft, as well as of the manufacturers and dealers throughout the country. He deserves the united, whole-souled support of each member of the association. Every high-minded member of the craft, man or woman, will rally to his support. Mr. Dozer is also fortunate to have, on the board with him, men of high ideals and genuine ability. They all have our hearty good wishes.

The convention appears to have been a very satisfactory one, except in point of attendance, only about 700 photographers being recorded as present. In this respect the affair was disappointing, as the favorable situation of the place of meeting and the exceptionally interesting program warranted an assemblage of large proportions. Something, evidently, was not quite right.

The Women's Federation contributed not a little to the general success of the convention. Its energetic and conscientious leader, Maybelle D. Goodlander, was re-elected.

President Towles's address contained a number of excellent recommendations for the betterment of photographers, several of which were adopted at a later meeting. Among them were the extension of the term of the president — a suggestion that had been strongly

urged by PHOTO-ERA — amalgamation of state-bodies; a legal bureau for help and protection of members; officers placed on per-diem basis; standardized business-practices.

Nanny C. Love delivered an address, which was a comprehensive and exhaustive treatise, on "Photography as a Force in the Business-World." Then followed a bountiful luncheon at the German House, provided by the manufacturers and dealers, at which about 750 participated. In the evening there was an informal dinner and dance on the roof-garden of the Hotel Severin, also due to the courtesy of the manufacturers and dealers.

The picture-exhibit contained 400 prints as against 180 at Atlanta, and was fully ten percent better. Hereafter, two classes of pictures will be seen at the official print-show — the purely pictorial, and the commercial or "bread and butter," and to be so designated by the exhibitors.

The lectures and demonstrations were the best of their kind and were fully appreciated. Everything was carried out according to schedule and in a manner highly creditable to the officers in charge.

The informal dance and reception held on the roof-garden of the Hotel Severin, Monday evening, was a fitting prelude to the great event.

Tuesday, 11 A.M., was the opening proper, and was well attended. Among those on the stage were past-presidents Stein, Reeves, Holloway, Van Deventer, Proctor, Larrimer, Townsend and Tyree, the Misses Gerhard, Katherine Jamieson, Maybelle Goodlander and Nanny C. Love. The meeting was opened with prayer by W. S. Lively — a praiseworthy innovation.

Wednesday morning was devoted to suggestions from the floor for the consideration of Congress, the most noteworthy being a committee to investigate poisonous chemicals; legislation to prevent copying of proofs; \$350.00 to be given as a purse to procure new members; classes for former prize-winners; adoption of a certificate of merit and rating to cover three consecutive years.

The feature of the day was Miss Reineke's demonstration in photographing small children. According to this successful artist, temperament, work, experience and a natural liking of children are prerequisites. The best time for sittings is after feeding or sleep, when the child is best behaved. No preparations in presence of the child; the mother allowed to sit near it; assistants have charge of all apparatus, and the artist makes the exposures; quality is sacrificed to pose and expression; plates are used liberally; white backgrounds preferred, also small work and plain, broad lightings; the speaker likes to work on a platform about 18 inches from the floor and quietly; instant appreciation and decision when a good pose or expression has been attained; the child is treated as "man to man," and taken unawares.

In the afternoon J. C. Abel gave his excellent practical talk "Simplified Book-keeping," appreciated especially by those who have adopted business-methods in their studios. The illustrated lecture "Progress of Photography from its Inception," prepared by Dr. T. W. Smillie, of the Smithsonian Institution, and delivered by C. L. Lewis, was interesting and instructive.



After this session, the ladies enjoyed an automobile ride around Indianapolis, by courtesy of the local photographers.

In the evening Dr. C. E. Kenneth Mees, director of the Research Laboratory of the Eastman Kodak Company, delivered an address, "The History of the Development of Color-Photography from its beginning to the Discovery of the Kodachrome," illustrated with many superb lantern-slides. Dr. Mees was given a rising vote of thanks for his very instructive and delightful discourse.

Thursday morning reports from Congress were read with regard to passing certain matters by the convention. Then followed lectures by Professor Edward Lake, of the University of Illinois, "Composition and Line in Photography," illustrated by chalk-drawings and living models—one of the best art-talks ever heard at a convention; A. O. Titus, "Demonstration in Negative-Making as used in a One-Man Studio;" Charles Weirs, "The Building of a Permanent Patronage."

C. L. Venard and Eduard Blum gave several practical and well-attended demonstrations in retouching and etching, and air-brush work respectively.

Thursday evening every living thing attended a frolic at Broad Ripple Park and Bathing-Beach. "Some frolic!" was heard at every hand the following morning.

Friday saw the accomplishment of much substantial work. Congress handed in its final report, and the recommendations adopted by the convention were: Fiscal year begins October 1 and ends December 31; cash-prize for campaign for new members limited to \$300.00; officers allowed \$7.00 per day for all board-meetings, etc.; and where hotels furnish entertainment gratis, only \$3.50 per day, exclusive of railway fare; state and combined state associations compelled to take out a charter, and manufacturers showing at conventions other than these—sections and local associations excepted—be penalized by being refused all privileges of the national association; suspension of all delinquents not paying dues for the last preceding convention, reinstatement only when back-dues are paid (back-dues not exceeding five dollars); slogan: "Be Photographed Each Year!" also to be used in poster-advertising and supplied to members at cost. Adopted also code of ethics as follows:

#### CODE OF ETHICS

My business standards shall have in them a note of sympathy for our common humanity. My business dealings, ambitions and relations shall always cause me to take into consideration my highest duties as a member of society. In every position in business life, in every responsibility that comes before me, my chief thought shall be to fill that responsibility and discharge that duty so, when I have ended each of them, I shall have lifted the level of human ideals and achievements a little higher than I found them.

1. The practice of photography, both as a science and an art, is worthy of the very best thought and endeavor of those who take it up as a vocation.

2. Having accepted photography as a life vocation, the practitioner should at all times and in all places, consider it beneath his dignity to deny the appellation "photographer," but should on the contrary esteem it an honor to be able to say, "I am a professional photographer."

3. Our brother photographer's name and reputation should be as sacred to us as our own. The off-hand slur, the unnecessary criticism of his work or methods or manners, the meaning smile, or shrug of the shoulder, have no place in the daily life of a professional photographer.

4. The re-photographing of the work of another to achieve a saving of cost for a patron is inconsistent with the best interests of the profes-

sion, and is not in accord with the established rights of our brother photographer.

5. The cutting of prices in order to get business away from other photographers without any other legitimate excuse is inconsistent with the dignity of our profession and not in accord with the rights of every man to have a fair and open chance to do business.

6. Advertising in its many forms is essential in these days of commercialism, but the claiming of false or unearned honors, untrue statements of any nature, boastfulness of work better done than others can do, depreciation of the work of other studios, is unworthy of the professional photographer, and its consistent repetition should be severely and publicly condemned.

7. The best interests of the patron should at all times be the first thought of the professional photographer. A studio based on service to the patron and demanding fair pay for real service is following the best tenets and precedents of the profession.

8. It is a privilege to give aid and advice to those whose knowledge is less than our own and who come, seeking our help, so that they may progress in the practice of photography. We learn most by giving to others of our knowledge. By refusing to give of the gifts that have been vouchsafed to us we impede the progress of the art.

9. True service to our patrons is founded on giving them what they desire at a price which will leave a fair profit to ourselves. This is not possible without a knowledge of what it costs to do business, therefore we cannot reasonably be giving true service unless we know what it costs us to sell, and unless we sell at a price which will give us a return proportionate to our skill and to our expense, so that both our reputation as photographers and our credit as business men may be maintained.

#### ELECTION OF OFFICERS

L. A. Dozer, president; Ryland W. Phillips, first vice-president; Homer T. Harden, second vice-president; R. W. Holsinger, treasurer; John I. Hoffman, secretary.

The Women's Federation, Maybelle D. Goodlander, president (re-elected); Clara Louise Hagins, first vice-president; Mary Gerhard, second vice-president; Bayard Wootten, secretary-treasurer.

#### NEXT CONVENTION AT CLEVELAND

Among the cities competing for the honor to have the 1916 convention were Asheville, N. C.; New York, N. Y.; Atlantic City, Louisville, Ky.; Cincinnati and Cleveland. The first four cities finally withdrew, and Cleveland won with 154 and Cincinnati lost with 64 votes. Being centrally located, Cleveland should make for large attendance in 1916.

#### SALON-HONORS

Certificates of Merit or Diplomas were presented by W. S. Lively to J. A. Bill, Cincinnati, Ohio; E. E. Doty, Battle Creek, Mich.; Victor Georg, Chicago, Ill.; Gerhard Sisters, St. Louis, Mo.; Hoover Art Co., Los Angeles, Cal.; Pearl Grace Loehr, New York City; Gertrude E. Mann, Minneapolis, Minn.; H. C. Mann, Norfolk, Va.; Misses Mead, Atlanta, Ga.; Jas. W. Porter, Youngstown, Ohio; Jane Reece, Dayton, Ohio; C. R. Reeves, Anderson, Ind.; Rembrandt Studio, Philadelphia, Pa.; J. F. Sipprell, Buffalo, N. Y.; Mary L. Smith, Binghamton, N. Y.; W. M. Stephenson, Atlanta, Ga.; J. C. Strauss, St. Louis, Mo.; Strickler Studio, Pittsburg, Pa.; Titus and Brunell, Buffalo, N. Y.; Edward H. Weston, Tropic, Cal.

#### HONORS TO THE LATE GUSTAV CRAMER

Resolutions were read regretting the passing-away of "Papa" Cramer. Tribute was paid to his memory, and all sincerely felt the great loss sustained by the association and craft.

## PRESENTATIONS

Ben Larrimer, on behalf of the association, presented to president W. H. Towles a cheque for \$190.50; and George Holloway, on behalf of the Women's Federation, presented to president Maybelle Goodlander a shopping-bag filled with one-dollar bills. Mrs. Towles received a life-size sepia portrait of her husband, and Miss Goodlander's mother a watercolor portrait of her daughter, both through the courtesy of the Sprague-Hathaway Company. Not to be outdone by mere photographers, Paul True, of the Anso Company, on behalf of the manufacturers and demonstrators, prevailed upon President Towles to accept a diamond scarf-pin.

Friday afternoon, at the "symposium," every one had a chance to tell his associates what special thing contributed to the success of his business. Thus many wrinkles with regard to proofs, show-windows, customers, sittings, etc., new to the majority present, were brought forth and discussed. Such an interchange of ideas should be a feature of every convention.

Friday evening the hall was thrown open to the general public, and the *Elite* of Indianapolis did honor to the occasion.

## MEMBERSHIP

The Women's Federation consists now of 100 active members — of about 2,500 women photographers in the United States — among whom five albums are circulated for encouragement and education. Former presidents are to receive life-membership certificates and are to be exempt from dues. The present picture-exhibit will be sent along with the national one to the various state-associations.

There is a feeling of hope and optimism that the National Association will grow in numbers, influence and usefulness, with about 30,000 professional workers in the country to draw from. Promises to help aid and assist came from every quarter, even the former national presidents have formed themselves into a subsidiary committee — to act in an advisory capacity. Similar promises have failed in the past. This time it will be different.

There was jubilation that the paid membership, up to July 21, 1915, was \$1,532. Other figures are of less interest; but the treasurer's report, to come later, will tell to what extent the Indianapolis convention was a financial success.

## THE MANUFACTURERS AND DEALERS

The display of all the newest and best in the photographic industry was superb and exhaustive. To have the manufacturers assemble their finest products at the National Convention, year after year, with unflinching regularity, and at great pecuniary and personal sacrifice, speaks well for their liberality and progressiveness, and for the wholesome condition of the entire industry.

Albany Card and Paper Co., Albany, N. Y. Card-stock.

American Paper Goods Co., Kensington, Conn. Envelopes.

Anso Company, Binghamton, N. Y. Exclusive exhibit of products exemplifying a great industry. Collections of prints on Cyko paper in every variety of tone and texture, particularly Enlarging Cyko prints made "while you wait." In apparatus: New York Studio Outfit; Anso Upright Studio-Stand; Anso Professional Printing-Machine. In preparation for the market: Professional Enlarging-Outfit with the new M-Shaped Cooper-Hewitt Enlarging-Lamp, operated in connection with the continuous Enlarging-Cyko demonstration. An important novelty.

Barston Co., Cincinnati. Sensitized Celluloid positives, also new product — Canvas Positive.

Bausch & Lomb Optical Co., Rochester. Lenses and shutters in great variety.

Blodgett Photo-Machine Co., Hicksville, Ohio. Printing-machine.

Eduard Blum, Photo-Art Shop, Chicago. Gum-prints, sepia, watercolor and pastel enlargements.

Bridges Mfg. Co., Rochester. High-grade mounts.

California Card Mfg. Co., San Francisco. Card-stock.

Campbell Mfg. Co., Campbelltown, Ohio. Repeating Flashlight and Auto. Retouching- and Repeating-Attachment for Studio-Work.

Central Dry-Plate Co., St. Louis, Mo. Fine display of negatives and prints from noted studios; their Service Letters for procuring photographers new business.

Chicago Photo-Mount Co., Chicago. Mounts and mailing-devices.

Cooper Hewitt Electric Co., Hoboken, N. J. New M-Shaped Tube for enlarging. Red reflectors for use with their regular Mercury Vapor Tubes were also shown.

G. Cramer Dry-Plate Co., St. Louis. A tastefully decorated enclosure, palms and flowers; large cabinet with negatives and positives lighted electrically; magnificent collection of prints from Cramer plates — every-day work by eminent photographers. The dominant feature of the display was a life-size oil-portrait of "Papa" Cramer, by J. C. Strauss, St. Louis.

De-Mo Photo-Paper Co., Columbus. High-grade developing-paper.

Eastman Kodak Company, Rochester, U. S. A. Impressive and comprehensive display of the products of the numerous departments — Kodak, plate, film, paper, apparatus, chemicals, color-photography, etc., including the Folmer & Schwing, Seed Dry-Plate, Rochester Optical Co., Blair Camera Co., and other important divisions. The entire exhibit was one of the greatest efforts put forward by this company, and certainly a credit to its progressive policy. It occupied the entire entrance to the first floor, was richly and harmoniously decorated with palms and flowers, cool and comfortable, with inviting easy-chairs and a general air of refined taste. The mind could not fail to grasp the magnitude of the lines handled by the company as demonstrated by the various displays of pictures and apparatus. The eye was gladdened by the sight of so many superb masterpieces by the best photographers in the United States, done in Royal Bromide and Carbon Black enlargements, Platinum Sepia, Artura Aegis, Artura Black, and in White and Azo Sepia. Illuminating display of commercial work on Carbon Black, the finest at the convention. The display of "Kodachrome" color-process — the last word in color-photography — the Eastman Portrait-Films; Royal Bromide Enlarging-Paper; new models of Empire State and Century View-Cameras; No. 7 and No. 8 Century Studio Outfits; No. 5 Circuit Camera and Eastman Enlarging-Outfit were among the features that produced the greatest interest.

Fowler & Slater Co., Cleveland. Photo-dealers.

Gross & Tracy Photo-Supply Co., Toledo. Mountings and high-grade specialties.

Gundlach-Manhattan Optical Co., Rochester. Cameras, from miniature to tripod sizes, new models; portable home-portrait camera-stands; Turner-Reich lenses for every purpose.

Halldorson Co., Chicago. Nitrogen Portrait-Lamp, Centrifugal Print-Washer, Home-Portrait Reflector, Giant Flash-Machine, and Combined Enlarger and Printer ("Projectorprinter").



Haloid Co., Rochester. Platinum-Surface Developing-Paper.

Hammer Dry-Plate Co., St. Louis. Fine display of Red Label and Blue Label negatives and prints, also their own beautiful Opal Plates, hand-colored portraits. Helios Chemical Co., Philadelphia. Electric Flash-lamp.

Hyatt's Supply Co., St. Louis. Dealer in photo-supplies. Metal frames and Gilbert Etcher.

Ilex Optical Co., Rochester. Standard Ilex between-the-lens shutters, and full line of Ilex lenses.

L. M. Jones, Fort Wayne, Ind. Regular photo-supplies.

Kimball-Matthews Co., Columbus, Ohio. Photo-mountings.

W. J. Lafbury Co., Chicago. Complete line of the Rodenstock Euryrinar lenses, made in Munich, Bavaria. Ley Portable Skylight, Chicago. Flashlight-apparatus.

The H. Lieber Co., Indianapolis. Dealers and manufacturers. Frames; mountings; Eclipse Adjustable Masks; Multiplex Display-Screen; the Lieber Friendship Frame, taking various size portraits which may be artistically grouped and preserved.

A. E. McBee Co., Inc., Columbus. Street-car advertising.

Michigan Photo-Shutter Co., Kalamazoo. Packard Ideal Studio-Shutters.

Mueller Brothers, Inc., Chicago. Hand-carved frames and art-novelties.

Neal Specialties Division of General Electric Co., Cleveland. Photo-Light Lamp and Blue-Light Bulb.

Presto Mfg. Co., Pittsburgh. Infallible Tinting-Masks and Presto Duplex Printing-Machine.

Quaker City Card Co., Philadelphia. General line of card-mounts and folders.

Robinson Furniture Co., Grand Rapids, Mich. Art-furniture for studio.

Shoberg Co., Sioux City. Portable Skylight Flash-light-Machine.

Simplex Photo-Products Co., Morris Park, Long Island, N. Y. Alamo Motion-Picture Camera; Northern Light, a twin-arc of 10,000 C. P.; Simplex shutters; projection-apparatus.

J. H. Smith & Sons Co., Chicago. Victor Products: Flash-powder, Studio Flash-Cabinet, and Home-Portrait Flash-Bag.

Sprague-Hathaway Co., West Somerville, Mass. Fine display of portrait-frames; colored miniature portraits in oil and pastel; enlargements in sepia and black and white, and colored transparencies on the new Eastman Portrait-Film. Messrs. Wallis and Elwell, in attendance, were congratulated by their many friends upon receiving two awards at the Panama-Pacific Exposition for their magnificent exhibit.

Stereo-Kolor, stereoscopes with red and blue lenses, giving varied color-effects.

Sweet, Wallach & Co., Inc. (Eastman Kodak Co.). Photo-dealers, Chicago. Silver portrait-frames.

Tapprell, Loomis & Co., Chicago. Leather novelties to receive photographs; class and group albums; Daguerre photo-cases; art-folders.

C. O. Venard, Peoria, Ill. The Venard Etcher.

H. C. White Co., North Bennington, Vt. Portrait-Light Outfits; Radion Enlarging-Lanterns; Darkroom-Lamps.

Wolff & Dolan, San Francisco. Probus Enamel and Print-Lustre.

Wollensak Optical Co., Rochester. Photo-lenses; Velostigmat, Versar, Vitax, Vesta and Verito, also Optimo, Regno and studio-shutters. A complete line of lenses for every purpose.

## THE PHOTOGRAPHIC PRESS

The *National Daily* was published as formerly and kept everybody informed of the doings of the convention. *The Camera* and the *Bulletin of Photography*, *Abel's Weekly*, and *PHOTO-ERA* were represented by Frank V. Chambers and Miss Lynch; J. C. Abel, G. J. Martin and D. R. Freeman, and David J. Cook, respectively.

## New Difficulties for German Manufacturers

JUST after it became known, in December of last year, that on account of the seizure of nitric acid the production of silver nitrate would be impossible, or at least doubtful, steps were taken by the Union of Manufacturers of Photographic Materials to ward off the threatened danger; for there really was danger, because without silver nitrate the practice of photography would be impossible. Even the military authorities were affected by it because the dryplates and photographic papers required for technical war-purposes could no longer be manufactured. Urgent representations, however, were not forbidden, and the nitric acid was supplied for making silver nitrate. It was also ordered that where silver nitrate is obtainable it may be sold and used in any quantity without further trouble. Hardly, however, was this difficulty disposed of when the question of getting nitric acid for making collodion arose, so that at least they might be able to make collodion paper. In this also relief was soon obtained.

Now our industry is threatened with a new danger, because as a result of the confiscation of all nitric acid the manufacturers find it impossible to get enough collodion. The manufacture of silver nitrate is also again in question, so that efforts are being made to find a substitute. The query has been made especially, whether in the preparation of emulsions silver sulphate could not take the place of the nitrate. The difficulty arising from the confiscation of nitric acid is all the greater on account of the greatly increased demand for photographic papers caused by the war, and most of the factories, owing to the scarcity of materials and workmen, are not in a position to fill their orders. With the portrait-photographers, who form only a fraction of the whole industry, the scientific and reproducing branches are hard hit. Nevertheless, it may be counted upon as certain that the efforts of the manufacturers in conjunction with the authorities will succeed in finding means to make possible a larger production.

*Photographische Industrie.*

ACCORDING to official reports, the German optical industry, in April, 1915, showed just as good business as in the previous month. Business-conditions are better than last year. Overwork was necessary to a much larger extent. Reports from the Jena glass industry indicate a very good business in the manufacture of optical glasses; but how much of it is reaching the United States?

TWELVE German aniline and chemical manufacturers announce that on account of the large increase in the cost of raw materials, especially sulphuric acid, they are obliged to make a further increase over the prices adopted in January last.

## Seed Plates

THIS is the title of a new manual recently issued by the Seed Dryplate Division of the Eastman Kodak Company, and which may be had of your local dealer gratis. It contains much general information of value and of particular interest to users of Seed plates.

## Our Illustrations

(Continued from page 155)

The design is very pleasing in its unaffected simplicity, and one is not conscious of the infraction of a well-known rule to place the object of main interest in the middle of the picture-area. The impeachment may be denied, however, for the foreground, preserved to emphasize the up-hill effect, still has about half an inch to its credit. The picture contains much of speculative interest, and herein Mrs. Hayden is particularly felicitous. Data: "Summer," Noon,  $\frac{2}{3}$  second; Wollensak lens; wide open; bright day; Seed;  $6\frac{1}{2} \times 8\frac{1}{2}$  Angelo Sepia print.

It is impossible not to enter into the spirit of Mr. Bronson's reminiscence, page 143. The pictorial arrangement evinces much originality and skill. The curving road naturally leads to the schoolhouse. You know it is around the bend. All the lines converge towards it. The sun is smiling upon the little pilgrims on the way to their daily task, who are placed discreetly at the entrance of the highway. It is altogether a logical and creditable composition. Data: "Country School Days," May 31, 1915;  $5 \times 7$  Orthonon, Goerz Celor; stop, F/8;  $\frac{1}{2}$  second; 3-time color-screen;  $5 \times 7$  Haloid print.

The magnificent sweep of shore — the waters of the Pacific at Bolina Bay, California — with a characteristic bit of the coast-country, page 144, forms an impressive sight. The climax of interest is in the broad stretch of beach upon which the surf is breaking. The group of pedestrians, an obviously necessary adjunct to the composition, is somewhat small; but Mr. Samuel has for precedents landscapes of Claude Lorrain, with such titles as "Philemon and Baucis" and "The Flight into Egypt." The picture serves also as a study in foregrounds. Data: May 30, 1915, 11 A.M.;  $6\frac{1}{2} \times 8\frac{1}{2}$  view-camera;  $9\frac{1}{4}$ -inch Wollensak Velostigmat, series II; stop, F/11; 8-times Ingento ray-filter;  $\frac{1}{2}$  second; Seed L. Ortho; pyro;  $6\frac{1}{2} \times 8\frac{1}{2}$  Platora print, Grade C, Instanto High Gloss.

Viewed merely for the beauty of the scenery, Mr. Lindsell's picture, page 146, compels admiration. One might easily mistake it for one of the Italian lakes, so that nature has been as kind to us as to the countries of the old world, and the American camerist has no need to cast covetous glances across the Atlantic. The material has been used with artistic ability, the figures occupy a felicitous position in the composition, and there is an excellent degree of atmospheric perspective. Careful trimming of the print would have leveled the water-line, however. Data: June, 10 A.M.; bright light; 1A Graflex, Cooke lens; Eastman Speed-Film;  $\frac{1}{10}$  second; stop, F/11, with 3-time ray-filter; developed in tank; enlarged Bromide print from portion of negative.

## Beginners' Competition

E. D. LEPPERT may pride himself in having produced an exceptionally successful portrait-group of Chanticleer and his friends, page 148. One could not ask anything better in arrangement and workmanship. To say that it deserves to be ranked with Howard S. Adams' group of young foxes, published in October, 1913, PHOTO-ERA, is but just praise. The detail and scale of gradation are held well, which is proof of good judgment throughout. Data: Taken at noon, in shadow;  $6\frac{1}{2} \times 8\frac{1}{2}$  Conley View-Camera with F/6.3 lens; open aperture;  $\frac{1}{2}$  second;  $6\frac{1}{2} \times 8\frac{1}{2}$  Seed 30; developed in tray, with pyro.

The delightful vista in the Riverway — a section of Boston's park-system, pictured on page 150 — is only

one of many camera-motives that present themselves in that prolific locality. Around the stone-bridge, of which several span the quiet stream that flows through Longwood and Jamaica Plain — suburbs of Boston — at least fifteen separate pictures can be made. Mr. Prest chose one of the best viewpoints, and the subject, observed at different hours of the day, presents a different aspect, more or less favorable to photography. Data: May 9, 1915, 4.15 P.M.; bright sunlight;  $5 \times 7$  plate-camera; 3-time ray-filter; Craner Iso Inst.; symmetrical convertible lens; stop, U. S. 4;  $\frac{1}{2}$  second; Rytol in tank; printed on Enlarging Cyko.

I have stated, in this department, that an entire tree in full bloom rarely lends itself to effective treatment by photography, and that a twig or a spray, placed near the camera to permit the blossoms to appear large, will yield a better result. On page 151, however, a spring-picture by Miss Scales proves an exception to my assertion. It is an unpretentious effort, yet engaging in its pictorial simplicity. The old, gnarled skeleton probably never looked so well during its annual career as when covered with a garment of fragrant, snow-white blossoms. Data: June 1, 1915, 4 P.M.; bright sunlight;  $6\frac{1}{2} \times 8\frac{1}{2}$  Century plate-camera; 14-inch rear combination of Verito lens; 4-time color-screen;  $\frac{1}{2}$  second; Seed L. Orthonon Non-Hal.; Citol developer;  $6\frac{1}{2} \times 8\frac{1}{2}$  Artura print.

There is something irresistible about young kittens and chickens, although they have served long and faithfully as camera-subjects. The line-up — you see the number is nine — makes a pleasing diversion and a convenient, decorative panel with which to close the chapter. Page 155. Data: Taken by flashlight; 15 grains of Victor Flash-Powder;  $5 \times 7$  plate-camera; B. & L. R. R. small lens; stop, F/16;  $5 \times 7$  Standard Ortho hydro-duritol; direct print on B. & J. Rexo.

## The London Salon of Photography

It has already been announced in these pages that this annual exhibition will be held as usual from September 18 to October 16, at the Galleries of the Royal Society of Painters in Watercolors, 5A Pall Mall East, London, England. Unfortunately the entry-blanks and regulations were not received until August 2, too late for publication in the August issue. As the last day for receiving pictures at the gallery (*unframed this year*) is September 7, there is an eleventh-hour chance, and we will gladly furnish blanks upon request while they last.

## The Snapshot-Nuisance at Newport

PHOTO-ERA has always decried the activities of the promiscuous snaphooter, holding that it is the right of every person to withhold his assent to be photographed if he so desires, especially if the photograph is to be used in the public prints against his will. The average person may think the argument a tempest in a teapot, for he is never molested; but the great and the near great, not to mention the wealthy who have no other claim to notice, are at their wit's end to know how to elude the omnipresent photographer. So persistent and importunate have the photographers become at Newport this season that a special guard of policemen has been kept on duty to protect the many summer residents of this fashionable resort. At a recent horse-show in Newport an official possessed of a bright mind and, we suspect, a sense of humor, organized a corps of grooms armed with open umbrellas with which to screen notables from photographic attack. So admirable was this defense that eventually the enemy was routed.



## LONDON LETTER

CARINE AND WILL A. CADBY

THERE is at present a members' exhibition of black and white work at the Halcyon Club. The most interesting exhibit is undoubtedly Miss Warburg's series of child-pictures, which are hung together in one corner of the gallery. They are bromide enlargements of fairly strong quality all enlarged up to equal size — this, Miss Warburg confessed to us, had been her greatest difficulty. Underneath, as well as the titles, are little rhymes. To give two examples:

"When the day is hot  
And the water cool,  
What little boy would not  
Paddle in a pool?"

and

"If you had to jog  
On a lead,  
Would you be a dog?  
No, indeed!"

The little boy enjoying the seashore and the tiny girl busy leading the dog are very aptly and tersely hit off. It is always so much more satisfactory when photographs and verses are by the same author.

We have seen many of Miss Warburg's child-studies before. The paddling boy is familiar, but in this series her work seems immensely strengthened by being viewed in a consecutive series. One gets so much better an idea of her purpose and realizes which qualities in her photography are accidental and which intentional. Also such a uniform row of prints suggests some object. They lead one to believe that they are illustrations for some child's book.

Nearly every photograph one is interested in nowadays has some purpose behind it. Since the war, we seem to have grown so much more utilitarian and our attitude towards photography is very much the same as we feel towards other things: is it any use? "Edmund's Engine," "Polly's Breakfast," "The Tin Can," etc., are probably going to amuse children, and so one feels sympathy and interest in her undertaking. One hopes that this terribly philistine and matter-of-fact point of view with regard to things artistic will disappear when the war is over.

There has been some talk in scientific circles of the coming of wireless photography. Perhaps, had the war not intervened and broken off the experiments, we might now be wiring illustrations to PHOTO-ERA magazine. A year ago Professor Korn had succeeded in transmitting photographs between Berlin and Paris, a distance of over 700 miles. On second thought, when one remembers the extreme scientific cleverness of the Germans, one wonders if they have dropped further investigations. Perhaps, later on, we may hear some wonderful revelations of how news-photographs have been flashed about.

To many busy people this summer holiday-season is the only time they get for doing any serious photographic work, and in Scotland — where we are just now — one is accustomed to come across plenty of London acquaintances indulging in a perfect orgy of photography. This year, however, all is changed. Many in London are ignoring holidays, and to those who are here the holiday-spirit is lacking. The few cameras we meet are carried only to the moors or the lochs, for everything else seems tabooed. One looks longingly at

Sterling Castle, so temptingly near; but no camera dare show its lens within eye-range. An American visitor staying at this hotel, who like most of his countrymen has a veneration for historic and picturesque buildings, was complaining bitterly yesterday evening. He has with him a huge camera and a perfect battery of lenses, and had to leave Edinburgh without getting any of the architectural studies he had intended.

The exhibition at the Little Gallery of sixty photographs by Mr. Richard Polak, of Rotterdam, forms a welcome relief from war-work and war-pictures. But even in that quiet and sequestered little room the world-contest follows us, for the catalogue states that Mr. Polak is going to hand the proceeds of all sales of his pictures to the British Red Cross Society.

This little exhibition differs from other one-man shows inasmuch as it is usual to find examples of efforts in various directions, both of printing and subject. But here we have sixty pictures, all very nearly the same size, printed in the same medium — presumably black platinum — and with the exception of a few portraits, the subjects are similar. The consequence is that the general effect is harmonious and pleasing. The portraits are certainly clever, with an unmistakably Dutch flavor about them. But what distinguishes Mr. Polak's work, and makes the show well worth a visit, is the series of complete pictures, if they may be so described, in which the subject has been carefully studied, and carried out with models and accessories exactly to suit them. For instance, in "The Three Generations" we have the cheery though aged grandfather, the fond mother, and the real, live, and apparently happy baby on her knee; and they are all quite busy acting their parts. And here, perhaps, is the only flaw in the series: one is tiresomely conscious that the models are acting their parts; but this is a difficulty all photographers are only too well acquainted with. There are many similar pictures, and they suggest book illustrations more than anything else, and should be valuable as records of typical Dutch people in their native surroundings. There is perhaps a certain stiffness and theatrical element about most of the photographs; but this can hardly fail to occur with such subjects photographed very sharply in (at least to English eyes) rather an elaborate environment; but for all that, they are well worth doing, and are certainly original, very interesting and suggestive.

The prospectus of the exhibition of the London Salon of Photography has been issued since last we wrote, and the conditions of entry are for this country a new departure. In a leaflet enclosed with the prospectus the committee explains the concessions that have been made. All pictures may be submitted to the Salon, both from Great Britain and abroad, *unframed*, and if necessary, unmounted. The Salon Committee will see that the prints are suitably and carefully mounted, if accepted, and in all cases will be shown under glass. It goes on to explain that the appearance of the exhibition as a whole will be — as experience has demonstrated — considerably enhanced by this method of showing pictures. The entry-fee is two shillings sixpence, and this covers the return of the exhibit by parcel-post. There is also a note advising, as far as possible, the use of light mounts, and there are even suggestions as to suitable sizes; all of which goes to show that the committee, besides making things easy for the would-be exhibitor, is eager to lead him on towards uniformity, both in mounting and shapes of pictures, which, if it can be achieved, will add enormously to the artistic effect of the show. This departure from the long-standing rules of the Salon Committee will surely do much to make the entry of prints seem less a task.

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**To Contributors:** Contributions relating to photography in any and all of its branches are solicited and will receive our most careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them, if not available, provided return-postage is enclosed. Authors are recommended to retain copies.

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**To Advertisers:** Advertising-rates on application. Forms close on the 5th of the preceding month.

**Published Monthly**, on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain**, Houghtons, Ltd., 88-89 High Holborn, London, W.C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

WILFRED A. FRENCH, Ph.D., Editor and Publisher

PHIL M. RILEY, Associate Editor

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383 Boylston Street, Boston, Mass., U. S. A.

Cable Address, "Photoera"





GEORGE H. HASTINGS  
BY JOHN H. GARO



# PHOTO-ERA

The American Journal of Photography

Vol. XXXV

OCTOBER, 1915

No. 4



APPLES

ROBERT ERVIEN

## The Possibilities of Mud-Puddles

WILLIAM S. DAVIS



DO not recall ever hearing any one say a good word for puddles, which may not be so strange after all, for it must be admitted that, considered simply as puddles, they are frequently quite annoying inconveniences to the pedestrian — particularly if an inopportune slip causes a closer acquaintance; yet granting all this, it seems to me time to give the mud-puddle its due, for met with in the right place and manner a nice puddle is capable of assisting the pictorial photographer to a considerable extent by introducing reflections and variety of tone into some portion of the scene which might otherwise be flat and uninteresting, or, more than that, create the combination for a picture in which it

very appropriately forms the principal feature. The wet-pavement idea has been exploited in varied ways these many years, frequently with very pleasing effect; but even a good thing should not be overworked, since there are other ways of suggesting wet weather, and, among them, the poor despised puddles so often seen in country districts along the roadside and in swampy fields or woods are not the least important. These may mirror the glory of tint and form of the passing clouds as they drift by in broken masses after a storm, or the wet grasses and trees at the edge of field and wood, which, presented thus, in less familiar guise, arrest one's attention until the artistic possibilities of the scene are made manifest. Even though the reflection shows only a



bit of clear sky, this spot of light tone is often valuable in breaking the monotony of a flat dull foreground, balancing a light area in some other portion of the scene, and also introducing lines which will lead the eye to the particular point desired. Even the ruts of a cart-track when so emphasized sometimes make a surprising difference in the appearance of a subject to the observer.

Since their shape is dependent upon the inequalities of the ground below, puddles assume a great variety of shapes, which adds still more to the possibilities, as under different conditions the irregular outlines change in the same spot.

In all compositions where reflections are introduced it is necessary to decide at the start whether they shall be made accessory to the other matter shown, or the main feature, since any indecision in arrangement will certainly result in a division of interest detrimental to the effect of the finished picture. Probably in the majority of instances the reflections will play only "second fiddle," being used, as already suggested, to add a note of interest to some portion of the composition. When this is the object, just enough of the water should be included to produce the tonal contrast and balance desired, that the eye can pass on toward whatever forms the central point of interest. To attain this end the reflections should not repeat the objects so perfectly as to cause direct comparison, neither should the reflected details show such sharp differences of tone as to look "spotty," as that alone would catch the



THE MIRROR

WILLIAM S. DAVIS

eye to an undesirable degree. This requires one to see that in the finished work the principal tonal accents be located elsewhere. By keeping these points in mind, and considering the reflections only as tones of varied shape and value which are to be placed to the best advantage in

the picture-space by altering standpoint and amount of material included, the matter is reduced to the question of harmonious arrangement of the several parts into an agreeable division of tones united by the line-pattern formed by their boundaries.

On the other hand, if the reflections are sufficiently interesting in themselves to form the theme, it is usually best to show only enough of the objects which produce them to indicate their source. This makes a high sky-line (or whatever takes its place in the composition) and concentration upon the foreground quite essen-



A STUDY OF REFLECTIONS

WILLIAM S. DAVIS

tial, consequently the more important lines of the latter, of course, must be most carefully considered in order to preserve a sense of stability and overcome the impulse of a spectator to turn the picture upside down because of the topsyturvy images of reflected details. It will be found an assistance in this respect to show some solid matter in the extreme foreground rather than let the water fill the entire space, definite details like a clump of grasses making a useful foil; and in some cases it is wise to break the clearness of the image somewhat by slightly disturbing the surface of the water, or waiting until a passing puff of wind acts in this manner.



VANISHING SNOW

WILLIAM S. DAVIS

In compositions of the class we are now considering, the highlights, and sometimes the deepest shadows as well, would be seen in the reflections, hence the advice previously given as to placing accents elsewhere no longer applies as a rule. This is not an inconsistency, however, as a moment's thought will show, for not only is it desirable when the reflections are the main feature to concentrate interest upon them by tone as well as line-arrangement, but it is not inconsistent with truth to nature to do so, for the following reason. While the highlights and deepest shadows in the entire scene, as visible to the eyes, would likely come in some portion of the

view other than the water, if the parts which produce them are excluded in arranging the composition, one may still see *their reflected images* in the water when the latter shows more than is included of the objects themselves, consequently the tone-accents in such cases might very naturally be seen in that portion of the composition. However, to preserve the feeling of surface-quality and transparency in the water anything like absolute black or white should be avoided.

Regarding the accompanying studies, "The Mirror" illustrates the last-mentioned style of composition, wherein the reflections are the main feature. This was taken in the corner of a yard one afternoon soon after the rain had stopped falling, the atmosphere being slightly hazy and the sunlight diffused accordingly, creating soft tonal quality. "A Study of Reflections" and "Vanishing Snow" supply two more compositions of similar character.

"After the Rain" simply introduces the reflections as accessory to the rest of the matter, but if the reader will imagine the difference caused by the substitution of bare earth in place of the puddle shown, the improvement produced in the pictorial effect of the composition by the presence of a little water will, I think, be evident. This subject was made the same day as "The Mirror," at the corner of a short side-street.



AFTER THE RAIN

WILLIAM S. DAVIS





"THE DESERT WIDE  
LIES ROUND THEE LIKE A TRACKLESS TIDE  
IN WAVES OF SAND FORLORNLY MULTIPLIED"

H. C. MANN

## A Plea for Stereoscopic Photography

HAROLD LOEB

**T**HIS writing is an humble yet earnest plea to the brethren of the photographic craft, should it find favor in their eyes, to commute the death sentence that has been passed on stereoscopic photography.

Are there any of the faithful for whom the magic of the hooded prisms still holds a charm and a delight? Rally 'round the flag, boys, don't be ashamed! Write to the editors of your photographic magazines, even as I, an obscure nobody photographically, have done, and perhaps we can yet do something toward starting an exchange-club, or a criticism- and instruction-column, or the like.

From what limited inquiry I have been able to make, I learn that stereoscopic photography has fallen into disfavor because the stereographs,

when viewed through the instrument, although showing perspective, show the objects photographed as flat and without apparent thickness. Is it not strange that, because of this one defect, the public has permitted the industry to sink into complete oblivion? Even "straight" photography, at its present best, has its obvious limitations.

The lack of interest in stereoscopic photography has brought about the usual results: a good stereo-camera cannot be bought at a reasonable price; plates of proper size, transposing-frames, mounts, etc., are hard to obtain, and the incentive to the amateur to produce this kind of work, which should be furnished by the photo-magazines, is lacking.

The postcard-size picture, at present so popular, is almost ideal for stereographs. To my

knowledge there is only one camera on the market to-day which splits the postcard into stereoviews. It also has an arrangement for moving one lens to the middle of the bellows-front to take single, full-sized pictures, but—it costs \$61 in its cheapest form!

Besides personal pleasure, there is another incentive to the revival of stereoscopic photography. This is the chance to discover a method to project stereoscopic motion-pictures, so that

they stand out in relief and perspective on the screen. The "movie" companies would pay almost any sum for such a process. Perhaps one of us can do it!

The writer of this item is not an organizer, nor does he presume to try to force the public against its natural bent. His sole plea is, that if there remains a sufficient number of photographers who are still interested in stereoscopic work, let them awake and show it.

## Copper Bromide for the "Equalization" of Negatives

P. H. PALMER



**D**EVELOPMENT after bleaching a negative with copper bromide is a process which is very seldom mentioned as being a serviceable method of improving a negative, owing, I imagine, to a misunderstanding as to the proper function of the operation. It is of little use for general intensification, although very thin negatives may be slightly improved thereby; but for strengthening the shadows, and at the same time reducing the highlights, of "soot and white-wash" negatives it is unequaled, and far surpasses ammonium persulphate, which is sometimes erratic in its action. Since there are many negatives which are faulty because the highlights are too opaque while the shadows are almost plain glass, a description of the method, which is simple and inexpensive, may prove of service.

Fifty grains of copper sulphate and fifty grains of potassium bromide are dissolved in ten ounces of water. Exactness in weight or measure is of no great importance in this case. This forms a bleaching-solution, which appears to keep indefinitely, and may be used again and again until it ceases to act.

The negative, of course, must be well fixed and washed. If it is dry it is advisable to soak it, in running water for choice, for about fifteen minutes, and it is then bleached in the above solution. It is highly important that the bleaching should be thorough and should be allowed to proceed until the highlights are white right through to the glass, as it is this undermost layer of the silver image which is dissolved away when reduction is necessary.

After bleaching, a short washing follows. This need not take longer than fifteen minutes, and it is then redeveloped in metol-hydroquinone, or in a similar developer. Used developer is rather better than fresh, as, being slower, there is more control. Development must be watched carefully.

The shadows will soon develop fully, the highlights proceeding as quickly, but continuing to develop after the shadows are complete, on account of the extra thickness of the deposit. Here is the secret of the control, for it is possible to stop development at any stage, and a little judgment is needed to know how far development should be carried. It is safe to let it go on until all but the highest lights are blackened over at the back. A quick rinse, and a plunge into the ordinary hypo fixing-bath, finish the operation, except for the necessary washing after fixation.

In the hypo the white portion of the image is dissolved away, leaving the deposit by that much thinner. It is not wise to attempt too great a reduction in one operation; but if it should happen, by misjudgment of the extent to which development has proceeded, that the reduction is too great, it is easily remedied by mercuric intensification. Whereas, if the reduction is not sufficient, the process may be repeated immediately the negative has been safely washed free of hypo.

Another important point may be mentioned. As it is the portion of film nearest the glass which is dissolved out, it is evident that we have here a valuable remedy for halation. That halation can be entirely removed is not always to be expected; but careful treatment will greatly mitigate the defect, as I have found by trial. Ammonium persulphate and the other direct reducers are rather worse than useless here, for they attack the surface of the deposit, where the halation is not present, whereas this method attacks the glass side of the film; i.e., the part where the halation actually exists.

Since there is a slight intensification of the shadows combined with great latitude in the reduction of the highlights the process might almost be called "equalization." Anyway, it is most useful and worthy of trial by all brother plate-spoilers.—*Photography and Focus*.



# The Keys of Improved Chemical Excellence



## Part II. The Proper Use of Good Materials by the Photographer



PHIL M. RILEY

**A**SSUMING a supply of plates, films, papers and chemicals in perfect condition, in accordance with last month's instalment of this article, the second key of improved chemical excellence lies in painstaking thoroughness in their proper use, for the best of materials will avail nothing unless intelligently utilized. There are pitfalls at every stage of actual picture-making by photography which common sense tells one to avoid, yet into which the average unwary and care-free amateur thoughtlessly trips unless restrained by friendly counsel. Despite the fact that most manufacturers of photographic materials publish for free distribution comprehensive booklet-manuals in addition to the abbreviated direction-sheets in each package of goods, unfortunately they are read by most camera-users after rather than before difficulties arise. Indeed, the more precipitate and costly method of learning by experience seems to be more popular than the "look before you leap" principle of finding out how to do things before attempting to do them. However, a magazine-article has been known to reach those who find instruction-books "a nuisance, dry and uninteresting," and so there seems to be sufficient justification for recapitulating certain essential factors in their order of sequence.

Plates and films must be loaded into their respective carriers before use in the camera and with the utmost care to avoid light-fog, either local in the form of dark streaks or general flatness of the entire negative. Of course roll-films and filmpacks are prepared for loading by daylight, yet certain precautions are essential. The safety of roll-film depends upon the tightness of the roll; be sure that in loading and unloading it is not allowed to loosen. See that the strip of paper backing is properly threaded into the spool so that it will draw straight between the flanges; many a film has been fogged irreparably through neglect of this matter and the consequent necessity to pull off the back of the camera after making half a dozen pictures on a ten- or twelve-exposure roll. Upon removing the roll from the camera make sure that the paper backing is rolled tightly upon the spool and that the gummed seal is secure. Filmpacks are less easily fogged. Be careful, however, in loading and unloading the adapter not to press the films in-

ward away from the opening in the front of the pack, as it facilitates reflection of light around the edges of the films. Handle the pack by its edges, for in pressing forward against the rebate of the opening the films and safety cover form the light-seal for those beneath. Retain the cardboard box for both roll-films and filmpacks after exposure; it provides added protection from damage by light and moisture.

Plates must be loaded into holders in a dark-room. The likelihood of fog is far greater before exposure than afterward, so that the utmost precautions must be taken. Be sure that the dark-room is light-tight, that the lamp does not leak white light, and test its actinic power at the usual working-distance for the plate in use. Ruby-glass is not safe alone, and post-office paper or opal and orange glass should be used to filter and diffuse the ruby-light. School yourself to do with as little light as possible. With practice it will become instinctive for you to turn your back to the light and to load holders in the shadow of your body, giving each plate a quick inspection in direct light.

In loading sensitive materials for use the fight must be begun against dust and tiny paper, glass and coating-chips, for they form an ever present nuisance in the photographic process, clinging to negative and print, and causing pinholes and even larger blemishes. Before loading plateholders remove the slides and dust them and the inside of the holders carefully with a camel-hair brush. Likewise dust the plates before placing them in the holders and upon removing them for development. Do this gently, as too vigorous use of the brush will electrify glass plates and rubber slides, causing dust to adhere to them. In tray-development of plates, where the plate lies flat and film upward, there is the added danger that sediment in the solution or particles of extraneous matter falling from overhead may cling to the surface and cause the small undeveloped areas called pinholes. All possibility of this is best avoided by having a wide rubber-bound brush of the softest camel-hair which may be wet with the developer and passed gently over the surface of the plate.

Scrupulous cleanliness, however, will do much to render pinholes and kindred defects of rare occurrence. Far too many of us let empty bot-

“THE SILENT, SHADOWY CLOSE OF DAY”



H. C. MANN



tles, packages and useless cast-off equipment accumulate in the darkroom only to collect dust and make cleaning difficult and discouraging. Too often, also, we allow spilled solutions to evaporate, leaving the crystals to float about with every stir of the air, causing troubles of many sorts. This is especially true of hypo from the fixing-bath which, in the developer, will stain the negative.

So far as possible load sensitive material just before use and develop at once after exposure, for exposed material deteriorates more rapidly than that which has not been exposed. Meanwhile do not let the camera, plateholders, adapters or rolls of film lie in sunlight more than necessary, for neither shutters nor holders and adapters are always light-tight under all conditions. Keep everything in its case when not actually in service, or else wrapped in a black focusing-cloth. In winter avoid a sudden change from extreme cold to indoor warmth; it will cause sweating of the sensitive surface, and mildew, sometimes sticking together of films not developed at once.

In replacing plates in their boxes after exposure and previous to development always pack them in pairs, face to face, as they originally came, each half or third dozen being wrapped tightly in black paper to prevent rubbing of the surfaces and to provide additional protection against light-fog or deterioration through other causes. Newspaper is not suitable; the ink affects the sensitive emulsion. Were the plates packed face to back, finger-marks and other impurities or chemicals on the backs would be placed in contact with the sensitive sides, and spots and stains would often be the result. Whenever circumstances make it necessary to delay development of negatives for several months, wrap each box of plates, filmpack or roll-film carefully in two thicknesses of tin-foil as an added precaution. Plates allowed to remain in holders for a long time after exposure are very likely to become light-fogged because of leakage, or to be harmfully affected by emanations from the wood or cardboard of the holders or from the leather of the carrying-case.

Exposure has much to do with the chemical excellence of negatives; indeed, it is the basis of all successful photography. Correct exposure records the picture as the eye sees it, so far as is possible within the limits of the photographic medium; there is a long scale of gradation, a degree of vigor according to the subject and atmospheric conditions, and detail in both sunshine and shadow. On the other hand, underexposure causes shadows without detail and a negative of great contrast; whereas, overexposure gives full detail yet with no brilliancy. A reliable exposure-guide intelligently used will prove beneficial, or,

better still, an actinometer which measures the light-intensity with sensitive paper. The use of either will quickly indicate the causes of the average beginner's tendency toward underexposure. The so-called "all-purpose" amateur camera with its shutter having a single snapshot speed of about  $\frac{1}{25}$  second will be found in practice to be of very limited usefulness, as are also those having speeds of  $\frac{1}{50}$  and  $\frac{1}{100}$ , perhaps even  $\frac{1}{150}$  or  $\frac{1}{200}$ . Indeed average outdoor-work more often requires the slow speeds of definite duration, such as 1,  $\frac{1}{2}$ ,  $\frac{1}{5}$ ,  $\frac{1}{10}$  second. Purchasers of a shutter not having these slow speeds will surely regret it.

Prior to development the solutions must be prepared carefully and accurately, for upon them depend the present appearance and permanence of the work. First assure yourself that the water is reasonably pure. Iron, alkaline salts and vegetable matter in the water will surely cause trouble. If distilled water is not available, use rain or boiled water carefully filtered. The manufacturer's formulæ are usually best, but in any case follow directions implicitly, for the order of putting salts into a solution is often of the utmost importance; so important, in fact, that certain chemicals, if placed in solution without a third, may react upon each other and ruin the mixture for photographic purposes. For instance, in making an acid fixing-bath the hardening-solution and fixing-bath proper must be made separately and dissolved thoroughly before mixing, otherwise the bath will become cloudy, milky and fail to perform its work properly. Again, certain chemicals dissolve readily, whereas others require hot water, and still others are spoiled by hot water, and again failure to follow instructions makes the work difficult or invites failure. Pyro, for example, dissolves readily in cold water and is spoiled by hot water, whereas a hydro-metol developer is best made with hot water.

Most salt-solutions are unstable, some, of course, keeping longer than others. The easiest way to preserve them in good condition is always to keep the bottles full. It is better to have several small bottles of four- to eight-ounce capacity than one sixteen-ounce bottle only partly full. This is particularly true of the reducing-solution of a developer which readily becomes oxidized and discolored. Glass-stoppered bottles are splendid, and ordinary bottles may be rendered very tight by allowing the drippings from a burning paraffine candle to fall around and seal the cork. This takes only a few minutes, and effects a saving worth the extra trouble and slight expense. Used solutions, many of which may be kept for further work until exhausted, are especially in need of careful storage, and

should be filtered to free them of sediment. Pyro and amidol provide notable examples of developers which will not keep in a ready-to-use solution. In the case of amidol, which is ordinarily made up by adding the dry salt to a sulphite solution, as needed, and also in the preparation of tank-developers from powders, care must be taken that the salts are fully dissolved, else the action may be uneven with spots of greater density where salt-particles cling to the sensitive surface.

Of course photographic solutions must not be overworked. They cost much less than the plates, films and papers they might ruin. As the developer begins to act slowly or becomes badly discolored throw it away, and do the same when the acid fixing-bath becomes clouded with sediment and frothy when agitated. Two gross of 4 x 5 negatives or prints, or an equivalent of another size, is enough for a 64-ounce bath to do.

The overworked solution often results from the employment of an inadequate quantity, because it becomes exhausted more quickly than one realizes. Other disadvantages arise from it also. To this very cause may be attributed much of the superiority of professional work over that of the amateur. The amateur, as often as not, develops each plate or print in a tray of corresponding size with the least possible quantity of solution. Not so the professional; he, as a rule, always uses trays big enough to take the largest work he ordinarily does no matter how much smaller the work in hand may be. And of solution there is a quantity, thereby gaining several advantages. The larger volume of solution is not so easily affected by heat or cold of the room, and any desired temperature is more readily maintained. Also the larger volume of solution does not oxidize so readily nor does it so quickly show the restraining-action of free bromide in the developer or the deleterious effect of silver salts in the fixing-bath, which these solutions acquire in performing their respective functions. Then, too, the purely physical result claims attention, for with a sparing quantity of developer it is difficult to immerse a plate or print quickly and evenly. Streaks and air-bells, the latter causing undeveloped spots, result from violent motions of the tray. Insufficient fixing-bath makes for slow and possibly incomplete fixation of negatives with subsequent stains, and for matting together of prints with incomplete fixation and subsequent yellowing, or the immediate formation of stains if the developer has not been fairly well removed by rinsing in an acid stop-bath.

An all-important precaution in development is to maintain the solution at a proper temperature. Sixty-five degrees is right, and no developer should be used when below fifty or above seventy-

five degrees. A cold developer works slowly and with great contrast, whereas a warm developer works uncontrollably fast and with flatness and fog. To warm a developer is often easier than to cool it, but there are several hot-weather precautions to be found in any comprehensive manual.

In developing roll-films by hand in the strip, have a metal clip at each end to hold it by and immerse it completely in water before development, to avoid the possibility of streaks. Have a depth of three-quarters of an inch in the tray of developer. Keep the strip, sensitive side upward, in constant motion back and forth until the image begins to show dark through the back of the film, when development is complete. Then rinse thoroughly in clean water and immerse in the fixing-bath.

If plates or filmpacks are to be developed singly or several at a time in a tray, it will be best at first to adopt some method of work, such as factorial development or the Watkins thermodevelopment. In this way the proper appearance of any given brand of plates or films when correctly developed with any chosen reducer will be learned. Use a tray at least the next size larger than the work in hand, and use plenty of developer. It is safer to pour the developer over the plate than to immerse the plate in the developer; streaks, spots and air-bells are less likely to form. Pass a camel-hair brush lightly over the plate to remove dirt, and lay the plate in the tray. Tilt the latter so as to make the nearer right-hand corner the lowest, place the edge rather than the lip of the graduate at that corner, and with one even sweep pour the solution over the plate, at the same time carrying the graduate away from the body and tilting the tray away from you in order to flow the developer rapidly over the plate. Rock the tray a few times gently and then cover it until development is complete. Only occasional rocking is needed to prevent mottling. Violent agitation encourages oxidation and shortens the life of the solution. Judge the quality of the negative by the final print, and modify future work accordingly, remembering that a dilute developer ensures better gradation in middle-tones and highlights than a stronger one, and that any desired degree of contrast may be had by prolonged action. It is always wise to use enough water so that the image will appear slowly and softly in the early stages of development.

In tank-development of plates or filmpacks a very important precaution is to use a tank that may be reversed end for end, and to be sure to reverse it frequently during the entire time of development. Every salt-solution constantly becomes denser toward the bottom, and this change takes place more rapidly than many camerists



realize. In a developer the greater concentration toward the bottom of the tank causes greater and more rapid development of one portion of the plate or film than another. Thus it may be seen that reversal of the tank end for end is essential, and reversal at regular intervals important. Failure in the first instance causes greater density at one side of the negative than the other, and in the second instance causes streaks of uneven density. In twenty-minute development reversal of the tank every four minutes — four, eight, twelve, sixteen — is none too often, especially with pyro, which stains the negative slightly.

The second tank-development trouble lies in the formation of air-bells when the plate or film-pack cage is lowered into the solution. Hasty dropping of the cage is the usual cause; lower it into the tank slowly and gently, and then move it up and down slowly — not above the surface of the solution — and let it hit the bottom with a slight jar to dislodge the air-bells.

Fixing rarely occasions any difficulty unless the bath be strong enough to cause blisters, provided enough of it is used and it has not become exhausted through overwork. The importance of keeping the fixing-bath out of the developer and of rinsing negatives and prints thoroughly with water before putting them into the bath cannot be overestimated; if the negatives are to be fixed in daylight thorough rinsing to remove all traces of the developer before exposure to light becomes essential to success. The combined action of developer and hypo is to cause dark spots or stains. Thus it is important to wash the hands thoroughly in passing them from one solution to another, and also to avoid drippings of one solution into another.

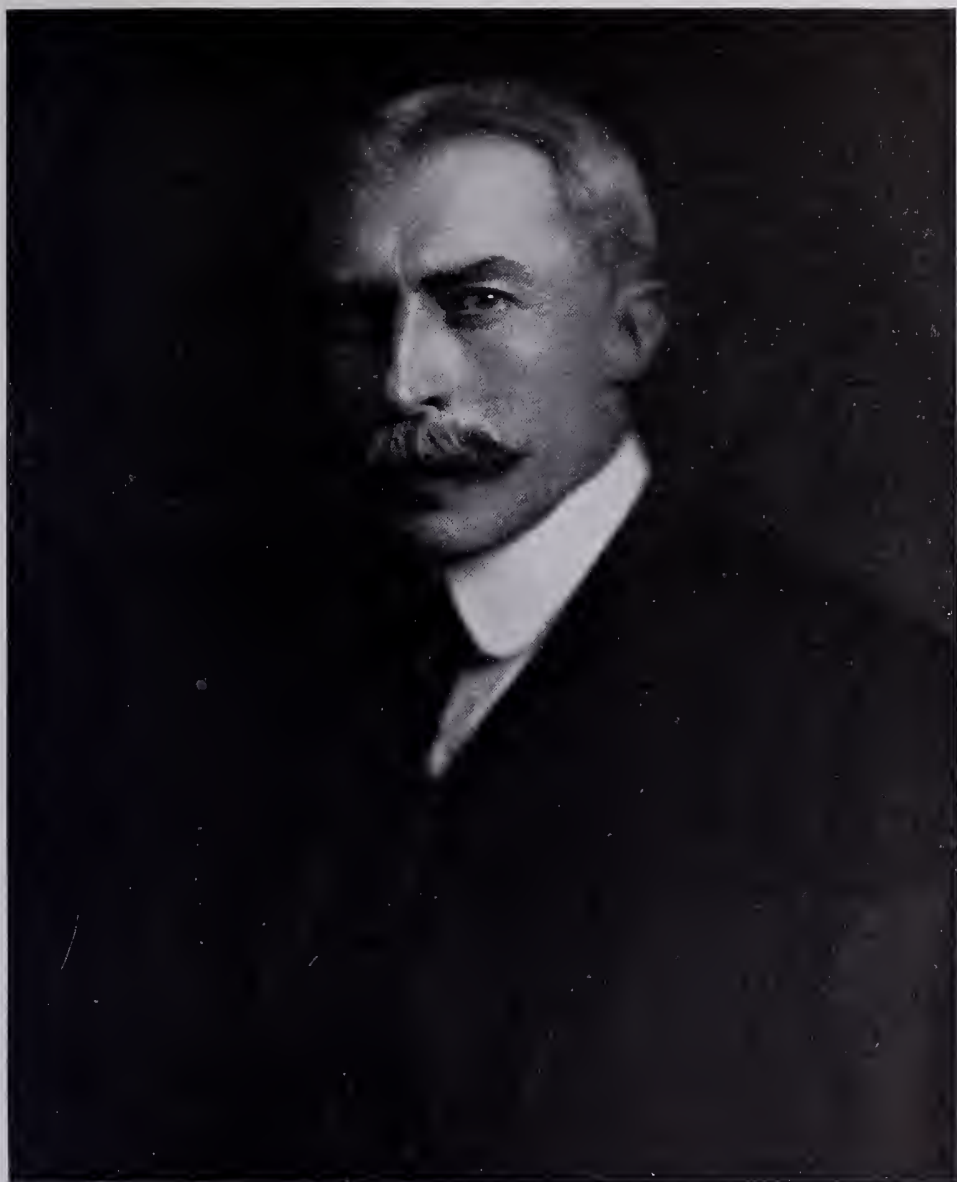
Print-making with gaslight and bromide papers is very similar in all its details to the making of negatives, except that the result is a positive on paper, and so most of the suggestions already made regarding negative-work hold with equal force in print-making. Gaslight papers are made in three grades, soft, medium and hard, and the right one should always be chosen according to the degree of contrast in the negative. Once more correct exposure is all-important, for upon it now depends the tone of the print. The right tone and degree of depth should be had when development is complete and comes to a perceptible pause during which there is no appreciable change for many seconds. Exposure should be such that it is neither necessary to force development with danger of yellowing nor to snatch the print from the solution to prevent its becoming too dark. The use of plenty of developer will ensure quick and complete immersion of the print and avoid streaks.

Papers stain much more readily than negatives, and the utmost precautions must be taken. As soon as the developer begins to discolor, throw it away and avoid yellow prints. Rinse the prints thoroughly in an acid stop-bath to keep developer out of the fixing-bath. Use plenty of the latter, always in good condition, and rock the bath for a minute or so as each print is put into it, to prevent the prints matting together and staining. With an old bath, especially in summer, yellow stains and toning-spots are often the result because sulphur has been released from the hypo and partial toning has taken place during fixation. If the prints have not been thoroughly washed this toning may continue during drying.

In midsummer the customary final washing of negatives sometimes becomes a serious problem because of the large quantity of water needed and the difficulty to obtain it at a suitable temperature. If its temperature is not above 75 degrees, running water can be used with most brands of sensitive material, provided a combined fixing- and hardening-bath has been employed as a precaution against frilling, blistering and reticulation.

Another method is to adopt a hypo-eliminator instead of washing negatives. Rinse each negative thoroughly for one minute in running water and place in a tray containing water with enough potassium permanganate to turn the solution pink. Remove the negative as soon as the color disappears, and continue to treat it in weak permanganate baths until the color is not discharged. This cheap and certain process of hypo-elimination prepares a negative for drying within three minutes after complete fixation. The permanganate may be kept conveniently as a saturated solution. It should be used only in dilute form as directed, for a strong solution acts as a reducer, as does prolonged action in a weak solution.

Careless drying of negatives during hot weather may become a source of trouble, especially when the humidity of the atmosphere is great. Rapid and uniform drying is to be desired, and humid air retards drying. Place the negative where there is a good circulation of air, but not in the sun; an electric fan may be used if available. Do not move negatives from one place to another, as there might be a change in the rapidity of drying which would cause a line of varying density. The longer the time of drying the more intense the negative, and any great change in the rapidity of drying has a marked visible effect. If a drying-rack is used, place negatives only in every other groove, otherwise a good circulation of air will not reach the centers, which will dry very slowly with increased density.



A. J. PHILPOTT  
BY JOHN H. GARO





# Side-Trips in Camera-Land on a Bicycle

WILLIAM LUDLUM, JR.



EXT to "footing it," the most satisfactory method of "side-tripping" for the camera-enthusiast is wheeling it. A bicycle can be easily coaxed into out-of-the-way side-paths and forest-trails where a motor-car would be impossible. Even when the way is rough, as in crossing open fields or through woodland, the "portage" of a wheel is but a matter of small consideration in the face of its great convenience as a saver of time and distance. As this is the day of miniature cameras, no one need worry about the weight of "excess baggage" in planning a wheeling-excursion. Most of my wheeling-trips have been made with a 3A Kodak as the extent of apparatus; but I have also, many times, carried a 5 x 7 view-camera slung on the handle-bars with the tripod strapped to the frame of the wheel, and find it much easier than walking with the same load, as the bicycle supports all the weight of the outfit. An additional fifty pounds, if necessary, make very little difference in the effort of propelling.

Of course, wheeling, like walking, is a matter of personal performance, not a reliance on steam or "gas" for transportation, and in that fact lies its chief charm and value — as you push you reap. The soft upholstered cushions of a motor-car are a great temptation, and gliding along the road without a thought of self-effort has its attractions; but beware of the seemingly easy, drifting methods of accomplishment. The pleasure which gives the largest return in value is the one gained by real personal push. Results in photography are seldom attained by the road of ease; but must be gathered in by the sweat of conscientious toil. If you are a camera-enthusiast and also possess a wheel, consider yourself doubly lucky. Real enthusiasm in photographic work, the painstaking, stop-at-nothing kind, is truly "a gift of the gods," and the additional ownership of a wheel only makes that gift a greater possibility in actual accomplishment.

The question of where to go and what to select in the way of subject depends largely on the individual viewpoint. As a rule, the unfrequented country roads or byways offer the most picturesque opportunities for pictorial work, the further away from the beaten track of motors the better. The odor of gasoline seems to create a "distinkt" city atmosphere, decidedly out of place amidst sylvan surroundings, and is not conducive to true artistic inspiration. The beauty of solitude is marred by the jarring hum of a passing motor,

and to commune with nature, to appreciate her at her best, one needs to be beyond hearing of distracting sounds. The lowing of cattle, the bleating of sheep and even the squeal of a disconsolate porker dovetails appropriately into the scheme of a pastoral picture; but the metallic blast of a motor-horn will shatter the beauty of the most picturesque atmosphere, for it suggests nothing so much as a command to jump the nearest fence and to do so quickly. Imagine Gray attempting to compose his immortal *Elegy* to the accompaniment of tooting horns and buzzing motors; under such conditions his masterpiece would have been as his "youth" in the poem, "to Fortune and to Fame unknown," and at best something like the following:

The town-clock strikes the hour when day must die  
The little Ford chugs slowly o'er the lea,  
A passing Packard's headlight flashes by  
And leaves the world to darkness and to me.



ALONG HIGHWAYS

Now fades the shuddering monster from my sight  
And all the air a sullen stillness holds,  
Save when another wheels its screaming flight  
And all the atmosphere to Bedlam moulds.

But what 's the use in trying to declaim  
Of sylvan scenes or simple folk at toil,  
The Fates decree, I must renounce my aim,  
Each passing motor will my effort spoil.

#### THE EPITAPH

My epitaph, kind reader, deep inscribe;  
Here lies a youth who died with many a groan  
Caused by the crazy, demon motor-tribe  
Whose speeding madness marked him for their own.

Pause but a spell and drop a silent tear  
To save a soul from torments of the curst,  
His spirit knew no other earthly fear,  
But in the grip of motor-madness burst.

No farther seek this mystery to disclose,  
His masterpiece died with him when he fell,  
So leave this motor-victim to repose  
Beyond the pain of passing autos' spell.

Far, far from the "madding crowd" is the  
place to find the true inspiration of nature, and  
a bicycle is the most adaptable of all conveyances  
to "get next." It will negotiate a very narrow  
foot-path where, sometimes, even "angels might

fear to tread," and will transport you to the  
heart of the wild in the twinkling of an eye.

Try it out as I do. Make it an all-day proposition.  
Take a little cold luncheon and an "icy-hot  
bottle" if you must; but don't forget the  
collapsible cup for use at some convenient spring,  
the water of which is truly "the nectar that  
Jupiter sips." Low gear, about 70, and a high  
spirit form the recipe for good work. The low gear  
makes easy riding and the high spirit makes for  
accomplishment. An early-morning start, if you  
are going any distance, finds most of the pedal-  
work out of the way before the sun gets too high  
either for comfort or good pictures. If you wish  
to preserve the feature of pleasure, a twenty-  
mile spin is enough at one time; more than that  
makes it a business, and a "tiresome" one at that.  
Don't put all your energy in the "pedals"—save  
some for the picture-part of the trip. A tired  
body never produces the best in anything.  
"Keep your foot on the soft pedal," and when  
you begin to feel leg-weary call for a "stop-  
over."

Some of the most delightful excursions in my  
experience as a camera-crank are made on a bi-  
cycle. As I have advised, if possible select the  
unfrequented routes, and if by chance the by-  
way crosses the highway of state travel, respect  
the old New Jersey adage, "Stop, look and listen,"  
before adventuring. Nothing gives greater pleas-  
ure in riding than a well-packed dirt road—leave  
the tarred and stripped way to the auto-fellow.  
Seek out the country lanes, as it is a "long, long  
lane, indeed, that has no turning"—in a photo-  
graphic sense—and every turn offers a pic-  
torial surprise to the alert eye.

Although the "open-season" for good shooting  
with the camera a-wheel covers pretty nearly the  
whole year, autumn is, by far, the best time for  
"side-tripping" by this method. After the heat  
of summer has abated, and the cool, crisp days  
of the fall months arrive, physical exercise be-  
comes a real enjoyment, and the pushing of a wheel  
is only a pleasant exertion. It is said, "What is  
so rare as a day in June?" June is, indeed, a  
month to glory in, as the poet has it, "knee  
deep;" but October is the month to wade in  
right up to the neck. I would pay tribute to this  
king of months for a thoroughly enjoyable bicy-  
cle-outing something as follows:

"Knee deep in June," may glory hold  
For many a budding poet;  
But of its beauties I'll not sing,  
Not if I really know it.

June, filled to brim with promises  
And foolish lovers' notions,  
Is only fit for love-sick swains  
To vent their fond devotions.



AND BYWAYS





SOME



VEST-  
POCKET



IMPRESS-  
IONS



A-WHEEL



Give me October's golden days  
When promise is performance,  
And all about is spread a feast  
Sans — silly lovers' romance.

"Knee deep!" Ye gods, I would not pause  
At such a shallow notion,  
I'd wade right in it to the neck  
As though it were an Ocean.

This may be poetical rot; but it's the truth. The fall months are the months of performance, and October the king-pin of them all. In the fall everything is ripening into the fulness of perfection, and "now is the appointed time," if ever, for man to come up to the mark of accomplishment. Nature is fulfilling its promise of the spring and pouring its bounties into the lap of the earth, and it is time for man to get out and hustle in the harvest. Work comes easy at this period and results are more certain. All may not have an ear for music, but it is an easy matter for all to be in tune with nature at this time of the year. Come, mount your wheel, start off on a little excursion into the pulsing harmony of the country and, as you glide along the highway, make your camera the eye through which to record the passing show of nature in her coat of many colors. Turn from the main road into the byway that twists and winds past the old mill and the ancient farmhouse, through field and forest, in sunshine and in shadow, and on and on to the place of peace where, surrounded by the symphony of nature's handiwork, lies the abode of content. Unpack your luncheon and, after satisfying the demands of the inner man, proceed to

allay the craving of the camera for the things beautiful. Try a few exposures in this forest fairyland and then, once more a-wheel, glide out along some narrow foot-path, over hill and dale, through waving fields, past babbling brooks, a snap here, a snap there, until, before you are aware of the swift passing of time, the sun begins to dip down into the golden west and the day is done. Speed for home, through falling dusk and creeping shadows, feeling as a man should who has lived a day in the open of God's country, better for the day, better for the deed.

It may be claimed that I talk too much wheel and not enough camera; but the wheel, in this instance, is only a means to an end. I assume that the reader "knows" his camera and the proper use of his photographic paraphernalia, and am merely emphasizing the importance of the wheel as a practical steed for speeding to places of pictorial accomplishment. "Needs must where the devil drives," and while I openly hold to my pet assertion, that "footing it" is the only real enjoyable method of locomotion, there are times when "distance lends *no* enchantment to the view" and I am only too glad to press my trusty bicycle into practical service.

If you possess a wheel, by all means make it a part of your photographic equipment; it will bring the distant places within easy reach and even discount "footing it" in the "long run." Trundle out your bicycle, and with foot on the pedal, hand on the bulb and eye on the opportunity, go it for all you are worth — even if you have to be put down as a "scorchers."



A DEFENDER OF THE COAST

H. L. BRADLEY





A DOUBLE-TINTED BORDER WITH WHITE MARGIN

WILLIAM H. SPILLER

## The Making of Artistic Printed Borders

WILLIAM H. SPILLER



THE artistic value of any photograph is considerably increased by the correct use of printed borders and the proper selection of the mount.

It is not difficult for the worker to make his own border-mats and then by double-printing obtain some really beautiful effects.

The first requisite is a printing-frame free of all twist or warp, and absolutely square inside where the negative rests, and I would suggest that the 5 x 7 size of frame be selected.

For making the mats, take any medium-weight black or red paper, and if the worker is using the Eastman Portrait-Films there will be found an excellent black paper between each pair of films, and this may be used to good advantage. The Eastman Company also makes a red paper put

up in packages especially for cutting mats from, and this paper has horizontal as well as vertical lines, ruled perfectly true, so that it is easy to place a guide upon any line and then with a sharp knife cut out the proper form and size.

As most photographers use folding hand-cameras in the 4 x 5 and 3½ x 4½ sizes, or possibly the postcard size, I shall describe the method of preparing for artistic border-printing for these sizes of negatives. The instructions as given may also be used in work on other sizes.

Place the piece of paper selected for the mat upon the table and cut to exactly 5 x 7 inches, and then, with the paper placed so that the long way is pointing from the worker, draw a line just 1¼ inches from the top and parallel with the top of the paper, this line to extend to exactly 1 inch from each side of the paper's edge.

At the bottom of the paper draw a line parallel with the bottom edge just  $1\frac{1}{2}$  inches from this edge, and of the same length as the top line. Connect these lines with two vertical lines and then there will be a rectangle 3 x 4 inches marked in the 5 x 7 inch paper.

Place this paper upon a 5 x 7 inch clean negative glass and put both into the printing-frame. Tilt the frame at a considerable angle to the left and, with a sharp blow against the table, jar the glass and paper into the corner of the printing-frame so that both of the parts are resting evenly in the upper left-hand corner of the frame.

Place the frame carefully upon the table and clamp the upper end of the back into place at the top of the frame only, and without disturbing the paper and glass. As the lower part of the back is not fastened, turn this back and, with some good glue, cement for a space of about 2 x 3 inches

the center of the 3 x 4 inch rectangle which has just been marked with the pencil. Clamp the lower part of the back down and put the frame away for several hours so that the glue may dry, and upon opening the frame the paper will be attached firmly to the glass.

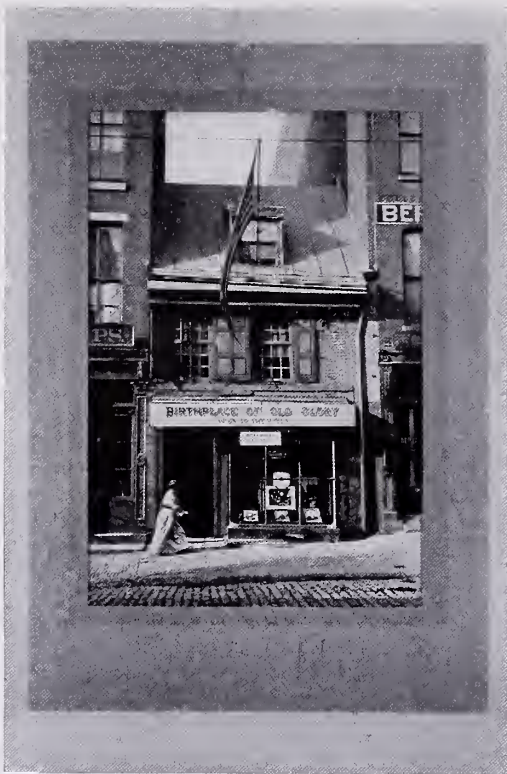
The 3 x 4 inch rectangle is now to be cut out with a sharp knife making clean corners. Putting the glass with the blocking-piece attached to one side, proceed to enlarge the opening in the mat which has just been cut from the paper attached to the glass, by cutting exactly  $\frac{1}{16}$  inch away from each edge. This will make the opening in the mat measure  $3\frac{1}{2}$  x  $4\frac{1}{2}$  inches, and is to be used with  $3\frac{1}{4}$  x  $4\frac{1}{4}$  inch negatives and, as so made, will give a tinted border-effect when printed upon 5x7 paper. If desired, the mat may be cemented upon another piece of glass or upon one of the Eastman Portrait-Films which has been fixed in



AN OVAL SINGLE-TINTED BORDER

WILLIAM H. SPILLER





A TRIPLE-TINTED BORDER

an acid alum hardening-bath. This celluloid film makes an excellent holder also for the blocking-piece instead of using a glass plate.

To print, place the glass carrying the mat in the left top corner of the printing-frame and adjust the negative to the opening, placing the printing-paper close against the corner of the frame the same as the glass and mat. Expose for the correct length of time and now remove the paper, negative and mat. The frame should now be prepared with the glass or celluloid carrying the blocking-piece only, and the printing-paper all carefully placed in the upper left-hand corner as before, and this time the exposure should not exceed one or two seconds, according to the depth of tinting wanted in the finished picture. Upon development, there will be the picture surrounded with a fine black line and the tinted border clear to the edge of the paper.

If a double-tinted border is desired, cut a rectangle from a piece of white paper making a 5 x 7 inch mat the same size as the mat cut in the black paper, and also cut another black paper mat with one-quarter of an inch larger opening than the first mat used. By placing this thin white paper mat with the larger opening black

mat into the frame with the blocking-piece, this will give a printed border having two tints. For three tints, simply increase the openings in these last two mats one-quarter of an inch and then there will print two tints surrounded with the natural-color paper edge. When the print is dry, this edge may be trimmed to suit the fancy or art of the maker.

For a 4 x 5 inch negative, proceed the same way in making the border-masks. The blocking-piece first cut out should be  $3\frac{3}{4} \times 4\frac{3}{4}$  inches and the opening in the mat enlarged to  $3\frac{1}{8} \times 4\frac{7}{8}$  inches with a top margin of  $\frac{7}{8}$  inch, side margin  $\frac{5}{8}$  inch and the bottom margin  $1\frac{3}{8}$  inches.

In the making of printing-masks and borders, or in mounting trimmed prints, it is well to make use of the following rule: allow one and one-half times as much space for the bottom margin as at the top of the picture, and the side margins should be just three-quarters the width of the top margin.

While it will be noted that the dimensions given all apply to vertical pictures, the rule just given for proper balance will apply as well to pictures taken horizontally, either portraits or landscapes, and irrespective of their size.

The making of oval-printed borders follows the same directions as given for rectangular forms, and the oval may be drawn with a piece of string



AN OVAL DOUBLE-TINTED BORDER

tied into a loop three or four inches long and then placed over two pins two to three inches apart, driven through the mat paper into a board.

By placing a pencil in the loop and keeping the loop tight against the pins, while moving the pencil around the oval, almost any shape and size may be drawn according to the distance between the pins. This oval is to be cut out the same as the other mats and blocking-pieces are cut out and fastened to the glass or celluloid.

The illustrations given will convey the idea and greatly help the serious worker to possibly more

elaborate tinting where, instead of using the white paper for the half-tint, a piece of linen or some basket pattern might be used. The writer has employed very effectively screening placed upon the opposite side of the glass that carries the mat so as not to have sharp lines of the screen-wire show.

The use of crêpe paper, veiling and many other mediums gives a very charming effect when making artistic borders; but for portraits only the severely plain tint-border, in one, two or three tints, should be used.

## Values in Photography

S. DONALD McNEILL



IF the beginner in photography visits one of the leading exhibitions in the company of some well-known pictorial worker, or with the guide afforded by an award-list, or other indication of selection, he is pretty sure to find himself at a loss to understand on what principle the judging or the appreciation of the work is based. He will discover that there may be quite a consensus of expert opinion on the merit of some pictures and against others, and he starts his photographic career under very favorable auspices indeed, if he does not prefer much of the work which those whom he believes to be men of standing in pictorial photography regard as second rate and *vice versa*. If he does not sweep aside all such alleged preferences as affectation, and talk about "art-cant"—we would not for a moment suggest that "art-cant" is non-existent—he will realize that in picture-making, as in everything else, there is much to be learned, and that by working at it, thinking of it, studying for it, his mental outlook will broaden and develop until, while not necessarily losing the pleasure he originally derived from making and seeing pictures, he has increased vastly both his capacity for enjoyment and his discrimination in the choice of what he can appreciate.

One of the qualities the importance of which is learned in time is that which is described as "truth of tone," or as "getting the values right." The artist comes to look upon his subject as a series of masses or values, and not merely as a clear-cut representation of certain objects. His mind translates a scene in this way if he is a painter, whereas if he is a photographer he has to carry the translation a stage farther and form a mental impression of it not merely in masses, but in black and white. The habit of doing this

must be cultivated diligently, being practised not merely when actually arranging a subject before the camera, but at other times, when there is no immediate thought of photography.

It is only by doing this until it becomes quite a second nature that one can hope to make progress in pictorial photography, and recognize what will and what will not be a suitable subject for a picture. At the same time it will be found that the practice reveals beauties in work in which hitherto we have been able to see nothing, and, on the contrary, shows up defects of which we have hitherto been unconscious.

Later on we shall consider the conditions which govern the correct rendering of values in photography; but before one can hope to get the tones true one must be able to distinguish truth from falsity.

One of the first examples to be encountered will be the sky in a landscape-photograph, which in most prints that are made—even in these days of orthochromatic plates and color-screens—is represented as a plain white expanse, which is almost always the strongest light in the picture. "The Bandit's" oft-repeated advice is to trim off all the sky—and that is one way to remedy a glaring defect; but the reluctance to do this, which the repetition of his advice indicates, shows that many of those who submit their prints to his criticism do not realize what a blot such a fault is in the eyes of all those who can appreciate values.

The rendering of distant landscape as compared with the sky, sunlight in its play upon objects at varying distances, shadows (especially in portraiture), are only a few of the instances in which the photographer is apt to lose truth of tone. Photography can deal with such subjects, and with the most unapproachable fidelity; but



it must be photography used with skill, and with the help of trained judgment. It is hopeless to try to get a thing right when one does not know when it is right.

Values, it may be observed, are largely independent of the total scale of contrast in the picture; and if, in considering them, it becomes necessary to pass some criticism on results which are "plucky" or "full of sparkle," it is not that these things are necessarily wrong in themselves, but that much of the falsity of values which one sees is brought about by the desire to get bright, strong prints at any cost.

Although a great deal depends upon the choice of the subject, under which head is included the lighting and, in fact, everything concerned with what is before the lens at the moment of exposure, much of the rendering of the values of a photograph depends upon the technique of the photographer, including in this category the choice of a plate, its exposure, development and printing.

It is often assumed that the question of tone-value may be answered at once by the use of a panchromatic plate and a screen properly adjusted to give a correct translation of the subject into monochrome; but this is very far from being the case. In fact, when a number of photographers get together, some will almost always be found who say they prefer as a whole the results which are given on plates that are not orthochromatic, and these will include a sprinkling of some of the best workers. The fact is that where it is a question of getting as faithful a transcript of the subject as possible, regardless of whether in so doing its effect is lost or not, the panchromatic plate and screen are without a rival; but when it is the "effect" to be obtained, then sometimes the panchromatic scores heavily, and sometimes it is beaten out and out by the non-orthochromatic.

A worker who keeps to one kind or the other will no doubt consciously or unconsciously choose subjects which suit the plates to which he has accustomed himself. It is doubtful how far it is wise to use a multiplicity of different materials; the expert advice given in *Photography and Focus* and elsewhere, to select one kind and master it, has much to be said in its favor.

On nothing does the rendering of values depend so much as the exposure of the plate, the development of the negative to suit the printing-process that is to be employed, and the determination of the depth to which to carry the printing. It is in the recognition of the close interdependence of these operations, and in the way in which they are co-ordinated, that one great difference between the haphazard photographer and the real master of his process is shown.

Underexposure is the one great rampant evil in modern photography. The hand-camera, used for purposes for which it is unfitted, or which at least are beyond the power of the particular instrument employed, is at the root of the mischief; but the fault is often to be seen in work for which a hand-camera is not necessary, and in all likelihood was not used. Much of this must be due to a survival of the old traditions about "plucky" negatives, "juicy" prints, etc., which embodied the belief that no photograph could be considered good which did not contain the full range of gradations which the printing-paper could yield, from blank white to solid black.

A mere pin-point of solid black in a print may not be objectionable — in fact, it may be essential to the truth of tone of the rest — but anything like an appreciable area must be wrong. It can suggest nothing in itself, it can represent no part of the subject, and is mere vacancy. A little observation will show how very far from solid black are even the deepest shadows in nature, and how very rare it is to see a darkness in which there is no hint of tone; yet, when wandering around such an exhibition as that of the Royal Photographic Society, we see picture after picture with such blacks.

In portraits, for example, a lady with dark hair and wearing a large hat, will have the hair in shadow rendered as a solid mass — as dark as the printing-method will give it; or, if not, it may be some messy nondescript tone due to inking up with oil-pigment an image which in the negative was represented as a blank. The value of such a shadow is lost at once. With a fuller exposure, there would be little subtleties of gradation which would have suggested the hair, its contour and, to some extent, its character, and would have kept it in tone with the rest. This, it should be noted, holds good whether the development has been kept short, so as to give a soft negative, which gives only a limited scale in the print, or whether it has been carried so far that the entire range which the printing-paper will give has been utilized.

Landscapes are often seen in which values are lost in the same way. The method of using the exposure-meter may, perhaps, have some of the blame. The reading which a meter gives, as the editor pointed out in these columns a few months ago, is the minimum which can be regarded as correct. Any error, therefore, or misjudgment in its use, which leads to the exposure being any shorter than it should be at once involves underexposure. As with all the subjects which concern the pictorial worker, it is possible to give several times the minimum exposure as indicated by the meter without any fear of overexposure, the rule



THE POTATO-HARVEST  
WILLIAM H. ZERBE







PIKE'S PEAK FROM COLORADO SPRINGS

KENNETH HARTLEY

should be to give at least double the meter-reading. While full exposure is necessary, if the values of the shadows are to be kept, development has to be watched if we are to get the lighter tones. Just as no print should contain any large area of solid black, there should be no blank white in the picture. There are certain exceptions in each case; but these do not affect the rule. Overdevelopment has a two-fold action. When there are two light tones differing a very little, development of the lighter ceases after a time, or at least slows down, and by continuing the action of the developer the darker of the two tends to catch it up. In this way a false rendering is introduced. But overdevelopment also falsifies the print by giving the negative a scale of densities beyond that which the printing-paper can register.

The meaning of this is that an overdeveloped negative will have its highlights so dense that, in order to get them to print out, the printing must be carried so far that the deeper shadows themselves close up; the deepest-but-one, and perhaps also the deepest-but-two, becoming as dark as the deepest of all. If printing is stopped when the shadows are correct, then the highlights will be lost.

But there are one or two things about development which may be noticed. One is that a negative may be developed too far for one process, and

yet be quite correct for another. It may be overdeveloped, if we are to judge by its results on slow gaslight paper, whereas it may be developed correctly for a carbon print. Moreover, unless there is that closing-up referred to two paragraphs previously, an overdeveloped negative can always be used as the basis for one that shall be developed correctly; whereas errors in exposure are past remedy.

Double-coated plates or films are very helpful in all work where the range of light and shade in the subject is very great; and many of our leading workers have expressed their regret that they are no longer on the English market. The best substitute for them is a well-backed plate, which for much, but not for all, of the work which the photographer can undertake will do all he can want. It is not difficult, as far as the mere technique of photography is concerned, to do work in which the values are correct. Much of what is turned out in which they are false is due in all likelihood to the photographer's lack of appreciation of what is right, caused by not having cultivated the habit of seeing his subjects in their correct values. Everything must have a beginning, however, and the early work of some of those who later on have shown the keenest eye for truth of tone has often been characterized by the same fault.—*Photography and Focus*.

claims were made on them for faulty apparatus. But even to-day it is more frequently the case than is generally admitted that the diaphragm-value is not given correctly; and it should be said that when such fault becomes known, the apparatus should in every case be rejected. A great many of the failures that occur when exposure-meters are used should doubtless be laid to false marking of the diaphragms.

That in most instantaneous shutters, especially the older ones, the indicated speed does not agree with the real speed—and, indeed, in many cases is very far from it—is a well-known fact. In practice, however, that is not of much importance. One soon learns what one's camera is capable of under given conditions; and when that has been determined by practice, it is comparatively immaterial whether the shutter is marked 1/50 second, when it gives really only 1/25 second, or not. If the shutter can be regulated, a speed can easily be found that will give the right exposure under normal conditions, so that fairly good results can be counted upon. It is different, however, if one is restricted to an instantaneous exposure, as is generally the case with the simpler class of shutters; and it is found that the speed is too fast for the lens, so that in certain circumstances a usable instantaneous picture cannot be made. In many cases—as in the one referred to above—a change cannot be made in the shutter without affecting its entire function. At any rate, it should be the business of the camera-makers not only to mark the shutter correctly, but also

Kodak equipments, which, even in their cheapest form, are in every respect reliable and comprehensive in their capacity. Evidently these cameras are fully tested as to what shutter-speed is necessary to obtain usable negatives even with the simple lenses with which they are furnished. With us, however, this point seems not everywhere to receive needful attention. It is, perhaps, not easy for our manufacturers to meet this requirement, since, as a consequence of the increasing specialization in the industry, many camera-makers do not produce their own shutters, but obtain them from special manufacturers. These shutter-makers, of course, cannot know with what kind of lens one or another shutter is to be used. Shutter-makers are, therefore, recommended to give their unregulatable shutters a speed not greater than 1/20 or 1/25 second. This speed is quite enough to take sharply the ordinary every-day movements—that is, everything moving on the street. It is also sufficient, even for lenses of less light-strength, when the illumination is fairly good, to obtain a thoroughly good picture. Faster shutter-speed is, in most cases, useless and suggests merely a waste of strength. If light-conditions are exceptional, such that with a single shutter-speed overexposure must be expected, the diaphragm usually offers a remedy.

*Photographische Industrie.*

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ALMOST anything more than the merest record of the value of a photograph, its value depending on

## Printing Photographs in the Sun and in the Shade

J. GAEDICKE



OR technical reasons, printing in the shade is preferred to printing in the sun, especially if a number of printing-frames is available, because there is less danger of over-printing. The question arises, however, whether a short, strong light does not have a different effect on the character of the print than that made with a long, weak light. In order to settle this question, I printed a sensitometer-scale on a very old matte celloidin paper up to No. 11, once for thirty minutes in the sun and once for nine hours in the shade. The prints had virtually the same appearance. After thorough washing and treatment with a weak solution of common salt, the prints were toned in a borax-gold bath. The slow print toned somewhat the quicker and required six minutes to reach a bluish tone; the quick print took eight minutes to reach the same

tone. The prints were then placed for one hour in a two-percent fixing-bath and finally thoroughly washed. A comparison of the prints, when dry, showed that the tone of the slow-printed copy was somewhat redder than the quick-printed one, although both were given the same tone in the toning-bath. The tone of the slow print was therefore reduced in the fixing-bath, whereas that of the print made in the sun remained unchanged. The latter also showed a better gradation in the deep shadows. It is remarkable that the slow-printed copy had a stronger inclination to bronzing, especially in the shadows, of which the quick-printed one showed no trace. This experiment, therefore, favors printing in the sunlight. In any case, it should be noted as a rule that prints made in the shade should be toned somewhat bluer on account of the reduction of color in fixing.—*Photographische Wochenblatt.*





PIKE'S PEAK FROM COLORADO SPRINGS

KENNETH HARTLEY

should be to give at least double the meter-reading. While full exposure is necessary, if the values of the shadows are to be kept, development has to be watched if we are to get the lighter tones. Just as no print should contain more than about 75% of the saving effected by its use will soon

yet be quite correct for another. It may be over-developed, if we are to judge by its results on slow gaslight paper, whereas it may be developed correctly on fast paper. Unless you will be able to get better results at less cost than can be obtained from Mr. Professional."

## Lens—Shutter—Diaphragm

**T**HESE generally form, in the modern folding camera, an organic unit, and must stand in a well-considered relation to one another if the camera is to give satisfaction. Unfortunately that cannot always be assured. It is very often noticed in cheap equipments, that the shutter-speed is much too great for the limited light-strength of the lenses, and as a consequence instantaneous pictures are hardly possible even under favorable circumstances, i. e., in bright sunshine and with the most sensitive plates or films. I had in my hands some time ago a 6 x 9 cm. camera that outwardly was free of defects in all respects; but it nevertheless was impossible to obtain with it a satisfactory negative, even with ultra-rapid plates and in an open situation in full sunshine. The shutter had only an

instantaneous speed which, on testing, I found to be about 1/80 second; and the achromatic lens, which was marked F 12, had really a light-strength of only F 20. Any person who understands the matter will readily agree that to make a successful snapshot under such circumstances would hardly be possible. What I found here, viz., that the value given the diaphragm was not in agreement with the facts, can often be proved if one will take the trouble to make the test. In trade-circles it used to be a well-known secret that a certain lens called "Aplanate," marked F 8, had really a light-strength of only F 11 or F 12. This scheme was adopted by the makers in order to improve the sharpness of focus around the edges. As the shutter used by these makers had a speed that corresponded to the light-strength of the lens, the result was satisfactory, and few

claims were made on them for faulty apparatus. But even to-day it is more frequently the case than is generally admitted that the diaphragm-value is not given correctly; and it should be said that when such fault becomes known, the apparatus should in every case be rejected. A great many of the failures that occur when exposure-meters are used should doubtless be laid to false marking of the diaphragms.

That in most instantaneous shutters, especially the older ones, the indicated speed does not agree with the real speed — and, indeed, in many cases is very far from it — is a well-known fact. In practice, however, that is not of much importance. One soon learns what one's camera is capable of under given conditions; and when that has been determined by practice, it is comparatively immaterial whether the shutter is marked  $1/50$  second, when it gives really only  $1/25$  second, or not. If the shutter can be regulated, a speed can easily be found that will give the right exposure under normal conditions, so that fairly good results can be counted upon. It is different, however, if one is restricted to an instantaneous exposure, as is generally the case with the simpler class of shutters; and it is found that the speed is too fast for the lens, so that in certain circumstances a usable instantaneous picture cannot be made. In many cases — as in the one referred to above — a change cannot be made in the shutter without affecting its entire function. At any rate, it should be the business of the camera-makers not only to build the apparatus, but also to see that even their cheapest productions are tested and the capability of the apparatus made to conform to what its price calls for.

With the fullest appreciation of the quality of our German productions, I can point only to the

Kodak equipments, which, even in their cheapest form, are in every respect reliable and comprehensive in their capacity. Evidently these cameras are fully tested as to what shutter-speed is necessary to obtain usable negatives even with the simple lenses with which they are furnished. With us, however, this point seems not everywhere to receive needful attention. It is, perhaps, not easy for our manufacturers to meet this requirement, since, as a consequence of the increasing specialization in the industry, many camera-makers do not produce their own shutters, but obtain them from special manufacturers. These shutter-makers, of course, cannot know with what kind of lens one or another shutter is to be used. Shutter-makers are, therefore, recommended to give their unregulatable shutters a speed not greater than  $1/20$  or  $1/25$  second. This speed is quite enough to take sharply the ordinary every-day movements — that is, everything moving on the street. It is also sufficient, even for lenses of less light-strength, when the illumination is fairly good, to obtain a thoroughly good picture. Faster shutter-speed is, in most cases, useless and suggests merely a waste of strength. If light-conditions are exceptional, such that with a single shutter-speed overexposure must be expected, the diaphragm usually offers a remedy.

*Photographische Industrie.*

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ALMOST anything more than the merest record can fairly be called art, its value depending on the skill with which the artist has caused others to feel the emotions which he wanted to express. — PAUL LEWIS ANDERSON in *Pictorial Landscape-Photography*.



KRONPRINZESSIN CECILIE AT BAR HARBOR

H. L. BRADLEY





EARLY MORN

## EDITORIAL

### Increased Prices of Photo-Material

**A**PROPOS of the increased prices of dryplates and printing-papers, it may be well to assure our readers that this unwelcome condition is due to no arbitrary action of the manufacturer or the dealer. One regrets as much as the other the advance in prices which has been necessitated by the increased cost of the raw material. The increasing scarcity of high-grade glass — which comes largely from Germany — and of certain chemicals has affected seriously the cost of dryplates, both domestic and foreign. Curiously enough, the prices of Autochrome and Sigma plates remain unchanged. Manufacturers and picture-framers who were quick to appreciate the situation likely to be created by the war laid in large supplies of their respective commodities. Others replenished their stock by old negatives bought from the photographers; but even this expedient was found to be inadequate. It may be another case of unpreparedness — industrial rather than military. Men who will neglect their New Testament can derive no benefit from the parable of the Ten Virgins. Domestic printing-papers have suffered no change in prices, despite the difficulty to procure the raw stock; but this delightful condition is not likely to last long. Platinum papers are expected to fall in line with chemicals and dryplates, because platinum metal — mined mostly in Russia — is used in the manufacture of spark-plugs for gasoline-engines, which constitute the motive-power of every aeroplane, submarine, motor-car and motor-cycle, and these are used in immense numbers by the contending armies and navies of Europe.

### Air-Bells in Tank-Development

**N**OTHING is more annoying in darkroom-operations than the bubbles or air-bells that arise during the process of development, particularly in connection with the tank-method. When air-bells form on plates that are being developed in flat trays, they can usually be detected and removed — not with a finger, as some unwise counselor has recommended, but with a broad camel-hair brush, as it does not scratch the film. In tank-development, however, the case is different. Here the bubbles are formed unseen, and their removal is accomplished by means other than brushing, although in certain circumstances this

is practical, though not trustworthy. Bubbles in tank-development are caused by effervescence on top of the developing-solution, and when the plates are lowered into the tank, the foam or bubbles are very apt to adhere to the surface or film of the plates and thus stop the action of the developer in these places, causing round, transparent spots. The developer should be allowed to stand for a while, at least, so that all air is out of the water, and just before development there should be no bubbles on top of the solution. The plates should be lowered into the tank gradually and moved up and down slowly — but not raised above the top of the solution — hitting the bottom with a jar. This breaks any possible bubbles and prevents others from forming. If the tank has a cage, accommodating a dozen plates or pack-films, this operation can be carried on with the utmost facility.

Many photographers are in the habit of lowering the plates into the tank too quickly, and shaking the tank after it has been closed. This is a mistake, and is bound to cause bubbles. The plates should be inserted gently and deliberately and the tank reversed gently. Or, if the developing-solution is poured in, it should be done slowly. Also, the water used in making up the developer should be allowed to stand for some time after having been drawn from the tap, so that what bubbles there are may rise to the surface. Some photographers wet the plates in clear water before immersing them in the tank. An excellent plan, immediately after the immersion of the plates, is to shake the tank vigorously several times — not back and forth, but from side to side. This action is sure to dislodge any air-bells that might otherwise adhere to the surface of the plates. Even with the utmost precaution, however, occasional bubbles are bound to assert themselves; but fortunately they are among the least of darkroom-troubles.

Another way to prevent the formation of air-bells is to give the plates a preliminary bath in a ten-percent solution of sodium carbonate. As this expedient is used very successfully with motion-picture films, it should answer for dryplates as well. If there is any danger of affecting the subsequent development, the sodium carbonate can be removed by a second washing in plain water. The actual purpose of the carbonate is to destroy the repellent tendency in parts of the plate caused by fatty parts in the gelatine.



# PHOTO-ERA MONTHLY COMPETITION

For Advanced Photographers

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition,  
383 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with *double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer.* Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards — Outdoor-Sports

Closed July 31, 1915

*First Prize:* Kenneth S. Ritchie.

*Second Prize:* H. A. Erickson.

*Third Prize:* L. Vinton Richard.

*Honorable Mention:* Mabel Heist Bickle, F. E. Bronson, Karl Fichtner, J. H. Field, S. H. Gottscho, Franklin I. Jordan, F. W. Kent, T. W. Kilmer, M.D., H. C. Mohr, Alexander Murray, Elliott Hughes Wendell, Alice Willis.

Special commendation is due the following workers for meritorious prints: Samuel H. Avery, James J. Connors, E. Kato, Louis W. Meyer, Geo. M. Rittenhouse, Jr., D. Vincent Smith, Otto F. Steeble, Harry Tabell, Harold Winslow.

## Subjects for Competition

"Clouds in Landscape." Closes September 30.

"Garden-Scenes." Closes October 31.

"Vacation-Pictures." Closes November 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.



Photo-Era Prize-Cup

IN deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## A Fine Distinction

"Now, Willie," said the Sunday-school teacher, turning to a small pupil, "can you tell me the difference between caution and cowardice?"

"Yes, ma'am," answered the little fellow. "When you are afraid, it's caution; when the other fellow is afraid, it's cowardice."—*Exchange.*



POLO AT CORONADO, CAL.

H. A. ERICKSON

SECOND PRIZE — OUTDOOR-SPORTS

**Vacation-Pictures — Photo-Era Competition**  
**Closes November 30, 1915**

In the present generation few indeed are the vacation-parties where there is not one or more individual equipped with a camera and ever ready to press the button and secure the very best and most personal souvenirs possible of all the good times experienced. Not all these snapshots can be classed as pictorial. Many will be of interest only to members of the party; but if the person behind the camera has any feeling for the picturesque, whether instructive or acquired, there will be some fortunate groupings, or some landscapes of good composition, that will be worth perpetuating.

Doubtless many vacationists will turn their steps toward California this season, for surely no one on pleasure bent will cross the Atlantic at present. The beauties of our Western scenery are second to none, and should be an inspiration to every camera-owner who has the pleasure to travel among them. Then the old Spanish Missions of California are older and of greater interest than almost any other buildings in the country. The wonders of the Yosemite, the Grand Canyon and the Yellowstone will all have more attention paid them this season than usual, no doubt; and the photographs, good, bad or indifferent, that will be brought away will be legion.

There are certain views that every one will take, but they will be taken from different viewpoints, in differing

lights and with various objectives. As "that truth is his at last who best expresses it," so the careful worker, who chooses his location wisely and has an eye to rules of composition, will find his work receiving consideration, no matter how many times the subject has been pictured by less careful camerists. An old favorite scene from some novel viewpoint, and in some particularly pleasing light, will prove quite as attractive as an unfamiliar view, though the latter may show equal skill and have the charm of novelty. The "rapid-transit" tourist is not apt to have time to pick and choose; he must "take" things as they happen to be at his time of passing, and from the "convenient" points of view. In order to do any sort of justice to his subject, he must have leisure to look the ground over and know what he wants for light and composition. The chance snapshot may prove a prize winner, but the probability is all against it.

For the vacationist at the sea-side there are endless opportunities, both for success and failure. The great cause of failure in work near the ocean is the excessively strong light which necessitates a great lessening of the time of exposure. If allowance is not made for this, the results will be altogether flat and useless. The rapidly changing moods of old ocean make it a very fascinating subject of study with the camera. The rolling surf after a storm is one of the most beautiful and awe-inspiring sights in nature, and one of the most tantalizing and disappointing to photograph. Perhaps





AN AFTERNOON-SPIN

KENNETH S. RITCHIE

# FIRST PRIZE — OUTDOOR-SPORTS

the camerist has found a safe position on some rock at the foot of which the surf is pounding marvelously — seeming to roll mountain-high — and he watches eagerly for the biggest waves and snaps them joyously only to find on development that what seemed such a towering breaker looks on the film like a very mild and inconspicuous wave, indeed. The man who would capture adequate pictures of the towering walls of water that hurl themselves against our rocky coasts must be a devotee of the cause and be ready to risk life and limb, to say nothing of equipment — even as does Mr. F. J. Mortimer, who, clad in oilskins, presses the bulb and runs for his life to secure his wonderful wave-pictures. The nearer one is to the level of the water, the higher the waves will appear to one's lens; but it would be well to keep in mind the slogan "Safety first," for wet stones are a slippery foundation, and a misstep may mean a smashed or water-soaked camera, to say nothing of a similar fate befalling the camerist. In its milder moods the sea is almost equally fascinating. The shimmer of morning- and evening-light over a quiet sea, the passing yacht heeling over as the wind fills her sails, and a thousand and one fleeting and interesting phases present themselves to the ever watchful camerist. In all of them he finds material.

But the shore also has its subjects, and some artists, both with brush and lens, find their best inspiration in the figures of bathers, and children at play in the sand. The marvelous color-effects of golden light and purple shadows that delight the heart of a Sorolla are not for us; but the strong light and shade, the luminous shadows, and the wavering reflections from the wet sand are fascinating subjects for experiment.

The present-day movement toward camp-life is an interesting and profitable one, and the many phases of camp-activities give wide scope for the camper with a camera. The camps in the woods of Maine and Canada,

where hunting and fishing are the chief amusements, offer wonderful chances to the one who hunts with a camera instead of a gun. His it is to hunt the hunter and, if possible, catch him in the act of bringing down his quarry. The fisherman, too, with his pole bent into a graceful arch as he lands "a big one," the Indian guide in his canoe, the scenes around the camp-fire — all are picturesque material. Some of the camp-activities in a summer-camp of girls or boys are capable of artistic presentation. The building of the fire, the hand-work in pottery, basketry or weaving, the riding horseback, canoeing, and outdoor-sports, such as archery, are all legitimate subjects for pictorial work. Wherever one's vacation is spent, there are sure to be many subjects worth while if one has the observant eye to discern them.

The vast majority of vacation-pictures will be taken with hand-cameras of postcard-size or smaller. The portability of the small camera recommends it to the tourist particularly and to travelers in general. It has very many things in its favor; but for pictorial work it has also many great drawbacks. One is the necessity to depend on a view-finder instead of being able to compose the picture on the ground-glass; another is the small size. The latter, of course, can be overcome by enlarging. Bromide enlargements have their place; but the aspirant for prizes would do better to make an enlarged negative, from which prints can be made in platinum, carbon or any favorite medium. The method of making enlarged negatives is comparatively simple with any equipment for doing bromide enlarging. The first step is to make a transparency from the original film. This gives an opportunity to improve the quality of the negative. If too soft, more snap may be gotten in the transparency, or too great contrast may be softened. Any hand-work that may be necessary can be done on the original negative or on the transparency, or



THE LADY OF THE LAKE

L. VINTON RICHARD

THIRD PRIZE — OUTDOOR-SPORTS

on both if advisable. Having obtained the best positive possible, insert it in place of the negative in your enlarging-apparatus and fasten a plateholder of the desired size to the easel. In one side of the holder place a piece of mounting-board of the thickness of your plate and focus on this. Very often it will be better not to use the whole of the view as taken by the small camera, but select that portion which will give the best composition and enlarge that to fill the larger plate. Having determined composition and focus, reverse your holder and expose the plate, giving rather less time than for even most of the faster well-known brands of bromide paper.

In making the positive and the new negative, almost any desired change in quality can be made and many alterations effected by judicious hand-work on all three plates. When you have a good negative of suitable size and proper printing-quality, the battle is won; for any one can make a good print from a good negative. Where the skill comes in is in getting a good print from a poor negative. Much, however, depends on choosing a suitable medium for the particular scene to be reproduced. The rough papers are desirable for treatment in mass, for broad effects and large sizes, but would ruin a view with fine detail and small size. Color also must suit the subject, brown tones being ideal for autumn-views, but manifestly inappropriate for snow-scenes. Have an eye to the "eternal fitness of things," both in subject and treatment, and give us the best possible print from the best of your vacation-pictures.

KATHERINE BINGHAM.

Photographers Among the Wounded

THE war has not allowed those adventurous individuals who have essayed to record it with the camera to get through unscathed. An American photographer was wounded some time ago in a suburb of Lille, the bullet striking him at a moment when, perched on the top of a tree, he was exposing upon a spot where the fighting was fiercest. Another special "reporter of wars" attached to the Pathé Company, and given an official permit to be near the Russian staff, has been wounded by shrapnel while exposing films on an artillery combat. This same correspondent has been decorated for military valor in token of his fearlessness. We gather from a French journal that the military authorities have authorized the representatives of four great Parisian film-houses to make war films at the front. These official operators have been given army status, and are thus admirably situated to carry out their work. The results are to be placed at the disposal of the Minister of War, but it is possible that some of the films will be shown in public, or sent to neutral countries.

*The Amateur Photographer.*

Appearances Are Sometimes Deceptive

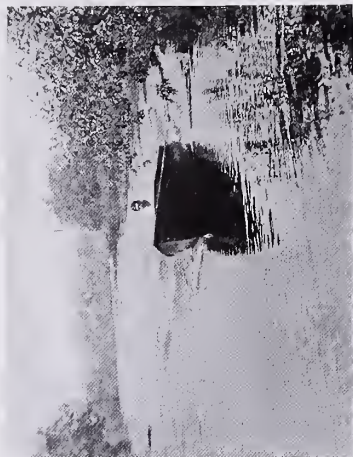
"I 'LL have to arrest you," said the policeman.

The man who was having trouble with his wife threw both arms around the officer and exclaimed:

"This is n't any arrest; this is a rescue!"

*Washington Star.*





# HONORABLE-MENTION PRINTS — OUTDOOR-SPORTS

Left to right: "Sailing, Sailing," Franklin I. Jordan; "At Third Base," T. W. Kilmer, M.D.; "Motor-Boating on the Charles River," Alexander Murray; "Speed-Kings of Earth and Air," H. C. Mohr; "Launching the Canoe," S. H. Gottscho; "Decamping," Karl Fichtner.

# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department

Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Modifying the Developer for Gaslight Paper

WHILE selection of the proper grade of gaslight paper is unquestionably the best method of controlling contrast in the print, there are instances when additional modifications become of service. The manufacturer's developing-formula can hardly be improved upon for the average run of work, but under extreme conditions where the utmost control is desired the composition of the developer may be varied slightly with benefit. For instance, in a hydro-metol developer, increasing the amount of metol and reducing the amount of hydroquinone will produce softer results. Increasing the amount of hydroquinone and reducing the amount of metol will increase the brilliancy or contrast to a certain extent. Increasing the amount of carbonate will cause the developer to work more vigorously and tend to produce black tones without any olive suggestion. Reducing the amount of carbonate will cause the developer to work more slowly and to produce softer results.

Thus, to increase the contrast in prints, increase the amounts of both hydroquinone and carbonate, and also the bromide, in order to ensure greater control. To reduce the contrast, use double the amount of metol and only half the amounts of hydroquinone and carbonate called for in the normal developer.

## Drying Negatives Quickly

DR. LÜPPO-CRAMER recommends, in *Photographische Industrie*, the use of ordinary wood-alcohol instead of grain-alcohol for drying negatives quickly. The latter has the drawback that a fogging of the film takes place if, after the bath, a too high temperature is used. Wood-alcohol does not have that effect. If a negative is placed for five minutes in the latter, it may be exposed at once to steam or other heat without risk, and in five minutes more the negative can be printed from. Wood-alcohol is also much cheaper.

## A German Soft-Focus Lens

A NEW photographic objective, German patent No. 283,494, dated June 15, 1913, and published April 17, 1915, issued to Leopoldina Texeira de Aragao, covers an invention whose object is to produce photographs with an artistic diffusion. For this purpose the front lens is divided in the direction of the optical axis into two half-lenses, which are placed at unequal distances from the full lens at the rear. By this means one of the half-lenses is brought to a sharp focus on the ground-glass, while the other half is somewhat out of focus and throws a second diffused image over the first one. The degree of diffusion can be varied at will, both lenses being furnished with a turning axis at right angles to the optical axis, allowing a slight inclination to be given to them by means of a screw.

## A Costly Pinhole Exposure

AN exposure through a pinhole is commonly thought the cheapest of all photographic experiments, seeing that the most expensive item in the photographer's apparatus is superseded. We were the witnesses the other day, however, of a pinhole exposure which cost five pounds, and, moreover, had no result at the end of it. The owner of an X-ray laboratory conceived the idea of obtaining a pinhole photograph of an X-ray tube in action. He put the plate about eight inches from the tube, and interposed midway between the two a screen of lead with the pinhole. Having no idea as to what the exposure should be, he gave three minutes; but, although the tube was fluorescing its brightest during the whole of that time, development showed not the ghost of an image on the plate. Thereupon he took another plate, and decided to double the exposure; but when the tube was set going again, instead of the familiar apple-green fluorescence, it flushed a reddish blue, showing conclusively that the tube was punctured, and fit only for the scrap-heap. Enthusiasm for pinhole exposures is now at a discount in that laboratory.

*The Amateur Photographer.*

## A New Recording Phonograph

PHOTOELECTROPHONE is the name given by engineer A. Berglund to an invention he recently exhibited before the Physical Association of Stockholm. Instead of the stylus of the ordinary talking-machine, which scratches the sound-waves on a waxed plate, his apparatus has a small mirror attached to the membrane. The wave-curve is reflected from the mirror upon a band of film and is recorded without friction. Conversation at eight or ten meters' distance from apparatus is recorded without difficulty. Light is used again for reproduction, being thrown through the film upon an electrically lighted cell placed behind it. When the band is set in motion, the rays passing through it are more or less obstructed, causing variations of the light on the cell. Through the latter an electric current passes, which varies in proportion to the amount of light. The current is conducted to a specially-constructed loud-speaking telephone, so that the sounds taken photographically on the band of film are reproduced.

*Photographische Industrie.*

## Motion-Picture Film the Only World-Standard

IN an address delivered not long since before the University Club, Washington, D. C., Mr. C. Francis Jenkins made this exceedingly interesting statement: "The motion-picture ribbon is the only unit that is standard in every country. Railway-gauges, for example, vary in different countries; units of value, volume, weight and of length differ; but the motion-picture film is the same the world over."





A SUNLIT PORCH

GEORGE KRAUSE

### To Remove Dirt from Old Photographs

ACCORDING to *The Professional Photographer*, an excellent way is to treat the photograph in the same way as a picture-restorer cleans a dirty, old engraving before he begins to restore it. Some cheap flour is mixed with cold water and kneaded until it is stiff enough not to stick to the fingers. It should not be made too wet; the dough should be elastic and quite clean to handle. The surface dust is taken off the print with a soft rag, or a tuft of cotton wool, and the print is put down on a flat bed and dabbed gently with a fair-sized lump of the dough. The speed with which the dough lifts the dust out of the paper is astonishing. No attempt should be made to wash the dirt off the surface of an old print, because it will wash only into the cracks and make it more difficult to clean.

### Faded Prints

OLD photographs in which the image has yellowed and faded can often be brought back to full vigor by a process which is virtually the same as chro-

mium intensification, recently described in these columns. The print, if valuable, should first be photographed, as its condition is not one for which the photographer can answer. It is then rinsed in two or three changes of plain water for about half an hour and bleached in a solution of potassium bichromate of a strength of ten grains to the ounce, to which five drops of hydrochloric acid have been added. After washing until all bichromate stain is removed, a fresh amidol or metol-hydroquinone developer may be applied to darken it. The process is, of course, applicable only to silver prints.—J. G. J. in *Photography and Focus*.

### Squeegeeing Prints

"To prevent prints from sticking to the glass to which they are squeegeed," writes "H. S.," "I find it an excellent plan to rub over the glass with a rag moistened with benzine, in which a very little spermaceti has been dissolved. The merest trace suffices, and the evaporation of the benzine should leave the glass apparently as clean as before."—*Photography and Focus*.



# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

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This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

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## Carbon-Printing for the Beginner

To the ambitious amateur who has obtained some especially fine negatives this summer, and wants to make the best possible prints from them, the carbon-process should be of interest. The very simple processes need not cause trouble to the careful worker, and the results amply repay any expenditure of time and patience, to say nothing of the pleasure to be found in the process itself. The materials can be obtained from any reliable supply-store; carbon-tissue in a wide range of colors, and the transfer-paper in various surfaces. Any good average negative will make a satisfactory carbon print, but before printing, a half-inch of black paper should be placed around all edges to form what is called the "safe edge." The tissue as obtained is unsensitized, and a bath must be prepared as follows: to one ounce of saturated solution of potassium bichromate, add 50 ounces of water, 5 drops of ammonia and 10 grains of sodium carbonate. Place in a tray and immerse the tissue face down, then turn and remove, by touching with a small camel-hair brush, any air-bells that may have formed. Allow it to remain in this bath about three minutes, then remove to a ferrotype plate and squeegee into contact. The plate may be stood in a current of air to dry, but the tissue, once dry, must not be exposed to the light. A good way is to sensitize at night the tissue for the next morning's printing.

The greatest problem is the printing, as there is no visible image. The speed of freshly sensitized tissue is approximately that of Solio, and an easy way to determine exposure is to print a strip of Solio under a negative of the same density as that used for the carbon-tissue, and take in the carbon print when the guide-print has reached the proper depth. There is fortunately great latitude in the carbon, and considerable overexposure or underexposure can be rectified in the developing. You now have a print composed of insoluble gelatine; but under the highlights the gelatine, being still soluble, may be washed away. That washing is what constitutes the development of a carbon print. The greatest action has taken place next to the negative, and that is the part of the print where the finest detail may be obtained in the highlights. To make this available, the print must be transferred to another support. This is affected by bringing the two together in cold water and then placing under pressure. The transfer-paper should be cut an inch or so wider all around than the print and should be soaked for an hour or so before use. When the print is ready, place it in the same tray and let it remain until perfectly limp, removing any bubbles that may form. Bring the two face to face under the water and remove together. Place on a heavy piece of glass or other smooth surface and rub firmly into contact; blot off superfluous moisture and place under pressure for five minutes.

The exciting moment has now arrived when we are ready for development. Take the tissue, now attached firmly to a support on each side, and place the whole in a tray of warm, not hot, water. After a few moments the color will be seen to ooze out from between the supports. Do not be in too great a hurry; but when it has begun to show quite a bit all the way around, take hold of one edge of the original backing and, still under water, strip it with an even pull from the new support. The shapeless mass of gelatine remaining holds wonderful possibilities. Move it gently under the water until the image begins to appear. If it shows too quickly and looks too light, the print has been underexposed and cooler water and greater care must be used to save it. If it comes very slowly and looks heavy, increase the temperature, and if it still is dark, place it on a piece of glass and allow water to fall on it with some force. A very much overexposed print can often be brought out splendidly by this method. Alterations can be made by local development and the character of the print quite largely controlled.

For local development the print should be placed on a piece of metal or glass supported at an angle. Heavy shadows can be lightened by directing a stream of water upon them, and too dark foregrounds developed with hotter water, while delicate sky and clouds are brought out with quite a cool temperature. The surface is most delicate while wet, and should not be touched in any way. No two prints should be allowed to come in contact in the trays or in washing. When the print is developed to a trifle lighter tone than is desired in the finished print — as they darken a bit in drying — place it in an alum bath to harden the gelatine. This is a 5-percent solution of powdered alum in water. If it is not clear, add a few drops of sulphuric acid. Filter before use. The prints should remain in this bath for 15 or 20 minutes, or until any tinge of yellow from the bichromate bath has entirely disappeared. They are then washed in quietly running water for a half hour, or in several changes, and hung up in some place free of dust until dry.

## Identifying Members of a Group-Portrait

WHEN a large group is to be photographed, a simple method of recording the names of the persons in it, so that each name can be correctly allotted, is to have a number of cards with consecutive numbers. A card is issued to each member of the group with the request that he write his name on a list against the number of the card handed to him. After the group is taken, each one is requested to hold his card so that the number is clearly visible from the camera, and then, a second plate being exposed, a record of the names of the persons is obtained by the numbered negative which this second exposure gives.—*Photography and Focus*.





# HONORABLE-MENTION PRINTS — BEGINNERS' CONTEST

Left to right: "Old Dutch Church, Tarrytown, N. Y.," Edgar Rutter; "The Close of Day," Myra D. Scales; "Portrait," Clarence K. Teamer; "A Pleasant Walk," George W. Dell; "Brook and Woodland," Sylvanus Smith, Jr.; "A Dull Day," Louis R. Murray; "Conservatory," Fred W. Sills



# THE ROUND ROBIN GUILD MONTHLY COMPETITION

## For Beginners Only

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

### Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

### Prizes

*First Prize:* Value \$5.00; *Second Prize:* Value \$2.50; *Third Prize:* Value \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "General"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

### Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. Criticism on request.*

4. *Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what contest it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer. Large packages may be sent by express very cheaply and with indemnity against loss.

### Awards — Beginners' Contest

Closed July 31, 1915

*First Prize:* George Krause.

*Second Prize:* Martinique M. Saucier.

*Third Prize:* Warren R. Laity.

*Honorable Mention:* George W. Dell, William J. Harris, Jr., C. H. Judson, Charles F. Langer, C. Sanchez Mejorada, Louis R. Murray, Louise A. Patzke, Mrs. H. G. Reed, Edgar Rutter, Myra D. Scales, Fred W. Sills, D. Vincent Smith, Sylvanus Smith, Jr., Clarence K. Teamer, Miss Elizabeth B. Wotkins.

Special commendation is due the following workers for meritorious prints: James Allan, Eva L. Eden, J. F. Eden, Adrian Fiorini, Alice S. Harris, Kenneth S. Ritchie, Arthur W. Tabell, Howard Scummon, J. R. Thuneau, Cavett V. V. Turner.

### Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed to the Guild Editor for criticism will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links. To compete with others puts any one on his mettle to achieve the best that is in him, and if, in competing, he will study carefully the characteristics of prize-winning prints every month, and use the Guild correspondence privilege freely, he cannot help but progress.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

**E. L. C.**—Your impression is substantially correct; but we should be inclined to qualify it to the extent of saying that **almost every subject, no matter how commonplace, has inherent beauty** provided the photographer has the ability to bring it out with the aid of proper viewpoint, lighting, weather-conditions and photographic technique. Although they are rare, we have seen a few subjects that we considered hopeless.

As to your own prints, the leading lines of the path tend to carry the eye toward the distant building, yet the highest light is on an unimportant summer-house at the left. Perhaps this might have been avoided completely by swinging the camera toward the right, or by waiting for another time of day, early or late, when the unimportant architectural detail was not in direct sunlight. As the path leads rather too far to the right, swinging the camera would have been beneficial in any case.

No. 2 suggests a thin negative, yet the sunlight-effect is excellent; also the composition as a whole and the facial expression. Had the little pictures on the wall been removed it would have simplified the background and more surely concentrated the interest upon the figures. This is especially true of the lighter one. The background of No. 3 also is rather too confused with sections of furniture, which are never pleasing in a picture. Have you noticed that the exposure was made just as the boy winked, making it appear as if his eyes were closed — as they were for a fraction of a second? The highlights here are rather white and without detail. Perhaps Azo Hard X is too contrasty.

**W. J.**—The best enlarging-device for an Ica Aetm B, it seems to us, would be either the No. O Graphic Enlarging-Camera, made by the Folmer & Schwing Division of the Eastman Kodak Company, or the Goerz Vest-Pocket Tenax Automatic Enlarger. Both employ the camera itself and its lens, and a little cabinet-work would be necessary to adapt the Atom; but nothing that your father, perhaps yourself, could not do easily. The former costs \$20, the latter \$33.50, including oil-lamp and condensing-lenses.

**D. D. D.**—The practice of photography on the side—i.e., for revenue—may be done if it does not interfere with your regular calling. In your case—clerk in a hardware-store—you speak of your love of the art, with a desire to give up your present position and to practise photography professionally. Think twice, and hard, before you

give up your present place. You say that experts pronounce your technique and composition flawless; but as you say that you have no business-experience, that the photo-business is overdone, that you are getting \$18 per week, are married, and twenty-two years old, we should advise you to hold on to your present position until you are cock-sure that things will not go wrong when you abandon the hardware-business in favor of professional photography.

**J. M.**—Green tones may be had on gaslight and bromide papers by toning with vanadium chloride. The formula is:

Ferric chloride .....	10 grains
Oxalic acid (sat. sol.) .....	1½ ounces
Vanadium chloride .....	20 grains
Nitric acid .....	50 minims
Water to .....	5 ounces

Then add, stirring the while, 10 grains of potassium ferricyanide dissolved in 5 ounces of water. Tone for one or two minutes, the longer the immersion the lighter being the green. Wash for ten minutes, and fix in a solution of two ounces of hypo and 200 grains of boric acid in 10 ounces of water; finally wash for ten minutes.



SHROUDED IN MIST

WARREN R. LAITY

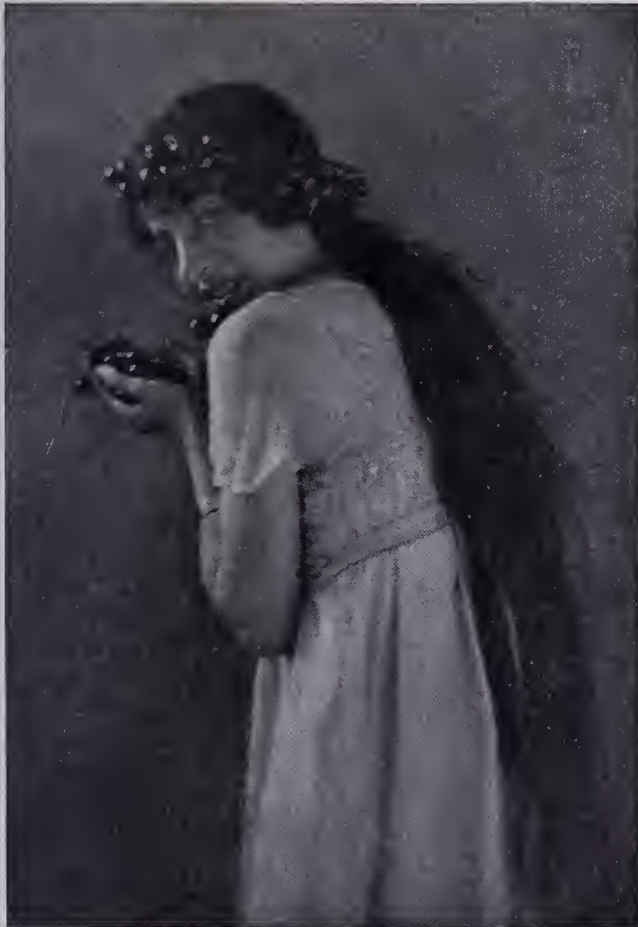
THIRD PRIZE — BEGINNERS' CONTEST

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

V. O.—The horizon-line is too low for a subject showing no greater distance, with consequent too great sky-area. By trimming an inch from the top of the print you will bring the little group of figures nearer to a point corresponding to the intersection of vertical and horizontal lines dividing the picture-area into vertical and horizontal thirds.

S. T. C.—Unfortunately a unique and pleasing composition has been ruined by sharper focus upon the distance than upon the objects in the foreground.



LES CERISES

MARTINIQUE M. SAUCIER

SECOND PRIZE — BEGINNERS' CONTEST

G. O. P.—Your sunset-marine is in every way admirable; no suggestion for improvement of the composition occurs to us. As to the printing, try a buff gaslight paper and then tone to a green with vanadium. In this way you will combine the color of in-shore water with the sunset-glow.

A. F.—Apparently you do not realize that the degree of roughness of a print depends even more upon its size than upon the subject, although admittedly in any given size one subject will permit of a rough paper while another will not. Reverse the surfaces of "Evening" and "A Spanking Breeze" and you will be better satisfied with the results.

G. C. S.—You are quite right in believing that there is a loss of detail in the highlights of a redeveloped print. This is due to its bleaching-action. Indeed, in such subjects as "A Maine Homestead," where the negative is rather too contrasty, usually the result of overdevelopment, it is advisable not to attempt redevelopment of a black print, but rather to use a self-toning paper, for instance, which gives a brown or sepia-tone direct. Of course a buff gaslight paper in a measure mitigates the effect of redevelopment.

H. T.—Your group is well composed and technically very fine, but we do hope the time will come when a book ceases to be the excuse for a family gathering. Surely many other things draw people together and serve as a motive for group-portraiture, but camerists seem not to be resourceful in utilizing them.

S. S., Jr.—Nothing the matter with "Brook in the Woods" except that the extreme distance is a trifle too sharp. You use too small a diaphragm. Stop F/11, or even F/16, would have given you a more artistic result than stop F/32, which you used. It is a delightful bit of composition.

We do not think that the large boat in the foreground adds much to "Lake and Shore." Its presence does not seem desirable, as it is too conspicuous an object. Place your thumb over it and you will see for yourself. Otherwise, the picture is very satisfactory.

"The Peach-Tree"—like any other entire tree with white blossoms, does not appear to lend itself successfully to a landscape composition, i. e., in photography. Often a spray of apple, cherry, pear or peach blossoms, placed not far from the camera, say a few feet, with the light falling at the proper angle, forms a pleasing and effective arrangement.

W. B.—You seem to be fully conscious of the technical faults of your prints, and that is half the battle of success. We would suggest that you make your figures not quite so large in the picture-space and that, above all, you avoid amputation of any portion of the head by trimming. The smallest print of the lot is by far the best because there is no evident consciousness of the camera, and the pose seems to be casual and spontaneous.

S. M.—Level the water-line in your marine by proper trimming and you will have a splendid subject. The large number of marines which comes to this office with the water-level anything but level is positively astounding and to be regretted.



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

*These figures must be increased up to five times if the light is inclined to be yellow or red. †Latitude 60° N. multiply by 3; 55° × 2; 52° × 2; 30° × $\frac{3}{4}$ . ‡Latitude 60° N. multiply by 2; 55° × 2; 52° × $\frac{1}{2}$ ; 30° × $\frac{3}{4}$ . §Latitude 60° N. multiply by $\frac{1}{4}$ ; 55° × 1; 52° × 1; 30° × $\frac{1}{2}$ .	MONTH AND WEATHER																			
	JAN.,					FEB., OCT.					MAR., APR.,					MAY, JUNE,				
	NOV., DEC. †										AUG., SEPT. †					JULY				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
HOOR																				
11 A.M. to 1 P.M.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
10-11 A.M. and 1-2 P.M.	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
9-10 A.M. and 2-3 P.M.	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$1^*$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$
8-9 A.M. and 3-4 P.M.						$\frac{1}{5}$	$\frac{1}{2}$	$1^*$	$1\frac{1}{2}$	$3^*$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
7-8 A.M. and 4-5 P.M.											$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
6-7 A.M. and 5-7 P.M.											$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1^*$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
5-6 A.M. and 6-7 P.M.																$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	$1\frac{1}{2}^*$

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks, ravines, glades and under the trees. Wood-interiors** not open to the sky. **Average indoor-portraits** in a well-lighted room, light surroundings.

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number  
in the third column

## Example

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 p.m., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply  $1/16 \times 4 = 1/4$ . Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class.  $1/16 \times 1/2 = 1/32$ . Hence, the exposure will be 1/32 second.

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.

U. S. 1	F/4	$\times 1/4$
U. S. 2	F/5.6	$\times 1/2$
U. S. 2.4	F/6.3	$\times 5/8$
U. S. 3	F/7	$\times 3/4$
U. S. 8	F/11	$\times 2$
U. S. 16	F/16	$\times 4$
U. S. 32	F/22	$\times 8$
U. S. 64	F/32	$\times 16$

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.  
Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 123, Wy. 250, Wa.  
Ansco Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.  
Ansco Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid

Class 1, P. E. 111, Wy. 180, Wa.  
American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter  
Imperial Ortho. Special Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film and Blue Label  
Marion P. S.  
Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.  
Cramer Banner X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.  
Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 34, Wy. 160, Wa.  
Cramer Anchor

Lumière Ortho. A  
Lumière Ortho. B  
Class 2, P. E. 73, Wy. 120, Wa.  
Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.  
Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Hammer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.  
Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.  
Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Halftone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.  
Lumière Autochrome



# OUR ILLUSTRATIONS

WILFRED A. FRENCH

THE picture of toil, which serves as this number's pictorial design, appearing again on page 185, is appropriate in more than one sense. The crops seem to be abundant the world over, this year, save in the countries devastated by the cruel war; yet the conditions amid which they are harvested suggest to the mind reflections that are likely to be sad and pathetic.

"And blessed are the horny hands of toil."

Art finds its most worthy themes among the humble and the lowly, and this has been particularly true of the American photo-pictorialists. Here, grace and beauty yield to charms of another sort—qualities that make for permanence in pictorial worth. No data.

The portrait by Mr. Garo, frontispiece, is of George H. Hastings, the faithful and conscientious secretary of the Photographers' Association of New England, himself a successful maker of portraits by photography. The picture speaks well for the interpretive and technical skill of the artist. The head is plastic and well rounded, and the expressive countenance holds the interest easily. Other characteristics of Mr. Garo's artistry are spontaneity of the pictorial design, truthfulness of characterization, and the feeling of dignified repose. Data: Wollensak Vitax Portrait-Lens No. 3; 16-inch focus; stop, F/4; 8 x 10 Cramer Crown; pyro; 1 second exposure; 8 x 10 Platinum print.

Among the fruits that have served long and faithfully in the portrayal of still-life, are apples. But they have not always been arranged judiciously, generally with painstaking symmetry rather than with artistic abandon. A local painter of not inconsiderable renown disposed of such a picture, last year, at an auction-sale. The four or five shining scarlet apples lay in a straight horizontal line on a polished mahogany table, their bright red coats being truthfully reflected. To the chagrin of the artist, this fruit-piece was sold at a higher figure than any of his other pictures which possessed much greater artistic value. I know of no true photo-pictorialist who would permit himself to compose a still-life in so mechanical and inartistic a manner. The arrangement by Mr. Ervien betrays no calculating, military precision. It has been produced in a low key, owing to the rough texture of the fruit. The illumination has been managed very cleverly, yielding a successful balance of light and shade. Data: Cramer Iso; 5 seconds.

W. S. Davis seems to have made the most of material that is obviously devoid of attraction or promise. His efforts in this direction show what an observant and experienced eye, aided by a thoroughly artistic temperament, can accomplish. No data.

It is our pleasure again to favor PHOTO-ERA patrons with two masterpieces from the portfolio of H. C. Mann. This artist's constant delight seems to picture nature in her strongly accented moods, in which field he is admirably successful and prolific. The freakish activity of the wind upon the sandy beach, as depicted in "Waves of Sand," page 168, afforded the photographer a favorite opportunity to show his exemplary skill. Data: B. & J. 3-time color-screen; 8 x 10 Century Camera; 12-inch, No. 6, Dagor lens; 8 x 10 Hammer Non-Hal.; pyro.

In "The Silent, Shadowy Close of Day," however, Mr. Mann has surpassed himself, producing a picture

of rare force and beauty. Page 171. The pictorial interest has been centered with striking skill in the glorious sunset, just over the sandy ridge—rugged and wind-swept. This superb achievement was exhibited at Indianapolis, and selected for the National Salon. Data: Mr. Mann writes, "The exposure was made just before sunset, about the first of June, in the hills away from any light reflected from the water, and a hill equally high just behind the camera. The sun was setting behind a heavy cloud and a little to the right, behind the camera, with now and then a break in the clouds to the south, with only the reflected light of the sun from behind the clouds. I waited quite a while for this break to get where I wanted it. I was afraid to give it more exposure on account of the sky. At times it is very difficult to get the right exposure on the sand-hills, especially when one is taking the picture against the sky."

Mr. Garo's portrait of A. J. Philpott, page 175, reveals the analytical mind of the eminent art-critic and lecturer. Mr. Philpott's address at the New England Convention was a notable effort and justifies the determination of the executive board to include Mr. Philpott's name in its future programs. No data.

The illustrations accompanying Mr. Ludlum's article, pages 176 to 179, speak for themselves. They are to be taken as suggestions rather than examples of artistic endeavor, although many of the subjects reveal true pictorial worth. No data.

PHOTO-ERA's contribution to the all-absorbing topic, "Military Preparedness," is an occasional reproduction of a pictorial suggestion, such as H. L. Bradley's snapshot of a United States battle-cruiser, presented on page 179. No data.

The picture of Pike's Peak, presented on page 186, is the result of a desire of numerous readers to behold a picturesque view of the famous mountain—different from the somewhat realistic one given in connection with Mr. Hartley's article in PHOTO-ERA for June, 1915. The photographer has produced a typical representation of Pike's Peak and the adjoining wooded country. The density of the foliage imparts a richness and solidity to the picture that is eminently pleasing. Those that would question the correctness of his color-values are referred to the accompanying data: June, 3 p.m.; hazy sun; 5 x 7 Century Camera; single view-lens, 14-inch focus; stop, F/32; Ideal color-screen; 2 seconds; Standard Orthonon; hydro-metol; 5 x 7 Cyko print.

Alfred W. Cutting, who, it will be recalled, jauntily walked off with three first prizes in the PHOTO-ERA Competitions, this year, has been very successful with camera-subjects from Greek and Roman mythology, several of which have appeared in these pages. One of his latest is a pleasing nude—187—the result of a long-cherished desire to portray Proserpina, daughter of Ceres, gathering flowers in the vale of Enna, just before she was carried off by Pluto to be his bride in Hades.

".....Not that fair field  
Of Enna, where Proserpine gathering flow'rs,  
Herself a fairer flow'r, by gloomy Dis  
Was gathered, which cost Ceres all that pain  
to seek her through the world,....."

Milton's "Paradise Lost."

He was fortunate to have for this task the coöperation of a well-formed young woman, the daughter of a neighboring artist-sculptor. The pose of the maiden is natural and free, and singularly graceful and refined. The outdoor-lighting has been managed with exemplary skill. There are no harsh contrasts, and sufficient light is reflected from surrounding objects to obviate heavy shadows. The texture of the flesh and the well-rounded body have been rendered with rare fidelity. The natural setting has been well chosen, and subordinated so as to impart adequate relief to the young goddess. It would have been extremely difficult to arrange one, so suitable and convincing, in a regular studio.

Data: July, 11 A.M.; partly cloudy; 8 x 10 Century Camera; 10-inch Euryscope, Series IV, No. 2; stop, F/16;  $6\frac{1}{2}$  x  $8\frac{1}{2}$  Stanley; hydro.; American Platinum print; second negative ( $6\frac{1}{2}$  x  $8\frac{1}{2}$ ) made from platinum print to obtain diffusion and to correct distortion.

As considerable interest is still manifested in the German steamers interned in American ports, the print kindly furnished by H. L. Bradley — who was on the spot when the famous ocean-liner, *Kronprinzessin Cecilie*, was at Bar Harbor, shortly after its spectacular run across the Atlantic — will doubtless prove entertaining to many. No data.

Richard Pertuch, whose impressions of tender sentiment and pictorial beauty have often embellished these pages, again appears as author of a charming seapiece, "Early Morn," page 190.

"The dawn is overcast, the morning lowers  
And heavily in clouds brings on the day."

Joseph Addison.

Those who may wish to look for the human interest in this picture will find it in the occupied boat at the right, some distance off shore. The proportions are admirable, and the awakening heavens dominate all. Data: July, 5.30 A.M.; 6-inch Voigtländer & Sohn Col-linear; stop, F/8;  $\frac{1}{5}$  second; Cramer Iso Inst.; pyro.

### The Photo-Era Monthly Competition

THE entries in the "Outdoor-Sports" competition were gratifying in quality, diversity and quantity. Of course, not a few were excluded on account of a too liberal interpretation of the theme, in favor of subjects such as children's diversions (blowing bubbles, playing tag, etc.). It is a source of mutual regret when the Publisher and contestants discover that the latter's efforts have been spent apparently in vain. Fortunately, PHOTO-ERA competitors are good sports and take their disappointments philosophically, being always ready to try again. Even failures have their compensations — the pleasure of making the pictures, also the practical experience, enhanced by comparison with the pictures of the winners.

The chief element in the successful pictures of this competition is spirited movement, and there is a lot of it in "An Afternoon-Spin," page 194, which gained the first prize. The motor-boat is speeding, amid spray and foam, along the Willamette River, but in a direction that makes it a logical feature of the composition. The middle-distance — and the objects in the distance arranged to form an interesting but not obtrusive background — aid in making an harmonious whole. Data: August, 1914; late afternoon; bright sunlight; 3 A Kodak fitted with Zeiss-Kodak Anastigmat;  $6\frac{1}{2}$ -inch focus; stop, F/6.3; Multi-Speed shutter;  $\frac{1}{100}$  second; Eastman N. C. Film; developed in tank; Eastman Royal Bromide enlargement.

In the polo episode, page 193, there is an entirely different kind of movement, one that needs careful watching by the photographer in order to capture a moment

that shall appeal to the artistic sense. It must not be a lucky "shot;" for that would reflect no credit on the artist-photographer. The exercise of vigilance, discrimination and coolness will reward persevering efforts. It has done this in the instance of H. A. Erickson, who has produced a gratifying arrangement. As the player at the left hit the ball — seen spinning along behind him — two others are dashing up and swinging in the direction where they can reach it. The movements of the three riders momentarily lend themselves to an agreeable composition, all due to the discriminating eye of the photographer. Strangely enough, the numerous white objects, which predominate in the picture and which ordinarily mar the pictorial harmony, here produce no disquieting effect. But it appears to have been mere chance that the two horses, at the right, were white, and the other black, for more admirable foils could scarcely be imagined. Data: October, 1914, 4 P.M.; 3 A Kodak, IIB Zeiss Tessar; stop 8; Volute shutter;  $\frac{1}{100}$  second; Eastman N. C. Film; Eastman Film-Tank; pyro; enlarged on P. M. C. No. 8.

The eye now turns from a scene of excitement to one of comparative calm — "The Lady of the Lake," page 195. The approaching canoe with its upraised bow, and the summer-girl in charge, surrounded by idyllic scenery and the quiet of a placid lake, constitute a truly charming and well-balanced composition. The tone-values, the perspective, the sense of proportion, the chemical effect — all challenge admiration. Data: June, 1915; 10.45 A.M.; good sunlight; 6-inch B. & L. R.R. lens; stop, No. 16;  $\frac{1}{5}$  second; 4 x 5 Cramer Portrait Isonon; hydro-edinol; enlarged on Velours Velvet Black.

Group of Honorable-Mention Prints, page 196. Data:

"Sailing, sailing," by Franklin I. Jordan; July, 4 P.M.; Imperial Non-Filter,  $3\frac{1}{4}$  x  $4\frac{1}{4}$ ; hydro-edinol; Sylvar 5-inch lens, at F/11;  $\frac{1}{50}$  second; enlarged on Enlarging-Cyko Buff.

"At Third Base," by T. W. Kilmer, M.D.; summer, 4 P.M.;  $3\frac{1}{4}$  x  $4\frac{1}{4}$  Kodak; Dagor F/6.8 lens;  $\frac{1}{300}$  second; E. K. film; bromide enlargement.

"Motor-Boating on the Charles River," by Alexander Murray; July 23, 1915; bright light; 1.30 P.M.; 4 x 5 Premo Camera; B. & L. Universal lens of  $6\frac{1}{2}$ -inch focus; stop, F/8;  $\frac{1}{5}$  second; Cramer Med. Iso; amidol; 8 x 10 enl. on P. M. C. No. 2.

"Speed-Kings of Earth and Air," by H. C. Mohr; August 8, 3 P.M.; bright day; Auto-Graflex, Jr.; 4-inch Cooke, F/4.5; Premo Filmpack; pyro, tank; enl. on Velours Black.

"Launching the Canoe," by S. H. Gottho; July, 5 P.M.; dull; Goerz Tenax 10 x 15 cm.;  $6\frac{1}{2}$ -inch Dagor; stop, F/16;  $\frac{1}{25}$  second, Premo Filmpack; pyro tank-powders; 9 x 12 Royal Bromide enlargement; re-developed.

"Decamping," by Karl Fichtner; August 9, bright sun; 10-inch Turner-Reich; at F/8;  $\frac{1}{50}$  second; 4 x 5 Hammer Ortho; hydro; Cyko enlargement.

### The Beginners' Competition

"A Sunlit Porch," page 198, is a strikingly original conception, and the product of a thoroughly artistic imagination. True the picture was entered by its author in the Beginners' Competition; but, as has been stated here several times, that is no indication of the contestants' inexperience. I shall be willing to wager that Mr. Krause is an accomplished pictorialist; perhaps unknown to fame, but an artist to the manner born. The fluted Doric column, one of a pair which forms a porch,

(Continued on page 213)



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## Wireless Photography

THE report, published by the American press, August 4, that an Indiana man had invented wireless photography, was received with a degree of skepticism by scientists, particularly as photo-telegraphy — Professor Korn's method of transmitting photographs by wire — is still in an experimental stage, although invented nearly a decade ago. The wireless man is reported to be able to "photograph" objects, buildings, forts — even armies — many miles away, either in the brightest day or the darkest night, with his present apparatus, which is operated by a six-cell dry-battery. No clue is given what scientific principle is involved, which makes the invention all the more susceptible to doubt.

## Eager To Please

DURING vacation-time a young man, fresh from college, ready to conquer the world at one fell swoop, applied to the Publisher for a position. Yes; he knew all about making up an advertising-page, and was prepared to solicit advertising just to show his ability. He was engaged on the spot, to help out.

The fourth day the Publisher discovered among the disbursements one for telegrams, 80 cents. It was traced to the temporary assistant, who had succeeded in getting a full-page advertisement, on an exchange basis. On receipt of copy, he telegraphed to the advertiser, "Copy received. Do you wish it single or double column?"

He filed out in single column.

## Those Profiles Again

A CORRESPONDENT who was interested in my little anecdote about the disappointing profile of the young woman in the subway (see *Ground-Glass* for August) is of the opinion that, in order to judge adequately a person's physiognomy by photography, there ought to be two portraits — a front and a side view. If one wishes to obtain trustworthy proofs of the regularity of a person's features, a profile is indispensable. He urges that from an artistic viewpoint, alone, the photographer should strive — not to exaggerate the weaknesses of a side-view, such as an ill shaped nose or mouth, or a receding chin, but to mitigate them as far as possible. Of course, very little skill is required to conceal these facial shortcomings by simply producing a full-face or a front view.

Our interested friend enclosed in his letter a newspaper portrait of the recently married daughter of an American diplomat. It was a direct profile representing in the frankest manner the ill-shaped, almost uncouth features of the young woman. One seeks vainly the reason for such an *exposé*. In all probability, however, the owner of this unprepossessing profile has beautiful eyes, fine teeth and a good complexion — physical traits which every woman prizes highly. Add to this a charming expression, an engaging personality and, above all, a noble character, with its accompanying virtues, and the absence of classical features is entirely forgotten.

## Not Quite the Same

AN amateur photographer in the Northwest sent us a combination subscription comprising *PHOTO ERA* and a German photographic journal, "*Photography über Alles*." He meant, *Photographie für Alle*.

## The Use of Foreign Words

THE occasional use of words and phrases from foreign languages, if it expresses the meaning of one's thoughts more clearly, is quite proper. Of course, such application must be intelligent, and the spelling of each word absolutely correct, otherwise the user faces criticism and ridicule. An expression that has already invaded photographic parlance, and used accurately once in a hundred times, is the French adverb, *par excellence*, which means, pre-eminently. To say that a certain make of dryplate is *par excellence* or, worse still, *par excellent*, may convey the idea of merit; but the phrase is incomplete and, as it stands, ludicrously incorrect. Far better say, that so and so's plate is *the* plate, or the plate of all plates. "For certain kinds of work the panchromatic plate is the plate *par excellence*," and, "James Inglis is the pioneer *par excellence* of modern portraiture," are legitimate sentences that illustrate the correct use of the seemingly popular French expression. Like the other much-abused Gallic term, *en route*, *par excellence* had better be let alone by inexperienced writers; for once it is firmly rooted in one's vocabulary, it is hard to dislodge.

## A Cheerful Feuilletonist

THE present war with all its calamitous consequences, robbing Britain of a fearful number of brave and brilliant sons, does not seem to disturb the serenity of "The Walrus." With undiminished wit and optimism he continues his weekly talk in *Photography and Focus*, producing many a hearty laugh and, at the same time, conveying much-needed advice on practical matters. Here is a specimen paragraph:

"From every point of view photography is a pretty mean and barren subject, but it provides a certain amount of argumentative sport. (By the way, I do not want any one to point out that at other times I have lauded photography to the skies, and that now I am calling it mean and barren. This is a free country in some respects, and I shall say what I please.) The hardy perennial 'Is Photography Art?' has provided unlimited fun. It has ruptured lifelong friendships, and kept the hospitals busy. There has been as much nonsense vented on that topic as on the Bacon-Shakespeare controversy, bi-metallism, the flat-earth theory, the existence of spooks, and all sorts of other recipes for promoting bad temper and extempore pugilism."

## Darkroom-Possibilities

Geraldine — "William means good; James means beloved. I wonder (blushing) what George means?"

Mrs. Fondhopes — "Well, daughter, let us hope that George means business." — *Exchange*.



# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## Photographers' Association of New England Seventeenth Annual Convention

August 10, 11 and 12, 1915



THOUGH comparisons are odious, one cannot help recall the National Convention at Indianapolis, last July, which despite its many brilliant attractions, its ideal location, the prestige of the P. A. of A. and the great amount of advance publicity, had an attendance of little

more than double that of the New England Convention, a month later. Considering that New England is only about the size of the state of Michigan, and contains a relatively small number of photographers, the Association did pretty well with its convention.

There were 200 paid admissions — less, to be sure, than last year — but, owing to the prevailing business-depression, many photographers practised economy and remained at home. It was a pleasant affair, after all, and those who were present had no regrets. The program contained many interesting features, aside from the regular business-sessions.

Mr. A. J. Philpott, art-editor of the *Boston Daily Globe*, addressed the convention on newspaper-photography, a subject on which he is thoroughly at home and can speak with authority. Comparing the portrait-photographer with the newspaper-photographer Mr. Philpott said, in part: "The manner in which you pose and expose your patrons is so clearly extreme flattery that it rises into a field of art that is more than fine — it is superfine. You are alone in that field. You constantly defy nature. You make the foolish look wise and the wise look foolish. You pose the stenographer so she looks like Mary Queen of Scots. You make the blonde or brunette and the red-haired girl either. In fact, you've got the old masters 'tied to a post' when it comes to making people look what they are not and never will be. Few of you consider the effect of all this necromancy on the individual. But why speak of the unpleasant?"

"The newspaper-photographer is in a class by himself. He is a recorder of facts. It is his duty to make more vivid the moment when the horses pass under the wire, when the most daring play is made, when the vast procession is being reviewed. He must be equipped with the best lenses and the most convenient cameras for all conditions of work. He must have the kind of nerve that never fails him under excitement. And every minute counts."

At the conclusion of his address, Mr. Philpott was accorded a well-deserved ovation.

The illustrated lecture prepared by Dr. Thomas W. Smillie, of the Smithsonian Institution, Washington, D. C., was delivered by W. H. Towles, president of the P. A. of A., and was extremely instructive and entertaining. Excellent lantern-slides were shown of photographs and apparatus of every period of the art, including the first permanent photograph; the first daguerreotype-camera made in the United States; daguerreotype-portraits of Joseph Nicéphore Niépce and Louis J. M. Daguerre; portrait of William Henry Fox Talbot; a calotype by Talbot; ambrotypes; carbon

prints; portrait of Dr. R. L. Maddox, inventor of the bromide gelatine process; Frederick Scott Archer, inventor of the collodion process; a series of silver-prints; Dr. Heinrich Vogel; H. P. Robinson; W. Willis, inventor of the platinum process.

Vice-president Orrin Champlain scored a hit with his talk on posing. He used Miss Alice McClure, studio-proprietor of New York, as a model with which to illustrate his many admirable ideas on the subject. His telling remarks are embodied in an article, which, together with several appropriate photographs, will appear in November PHOTO-ERA.

President Haley entertained the convention with an informal talk on how photographs may be made artistic by omissions rather than by commissions. He believes in the use of as few accessories as possible, explaining that some photographers are apt to mar a promising picture — an attractive sitter — by excessive finery, when the object should be to let the natural physical beauty assert itself. An accessory, however attractive in itself, may often prove an intrusion and detract from the importance of the portrait proper. Good, quiet, harmonious arrangements are wanted, rather than intricate and involved designs.

Mr. J. A. Dawes, of the Wollensak Optical Co., Rochester, explained in an illuminating paper the causes of failures ascribed to photographic lenses. They were traceable to unintelligent or careless use of the lenses and the cameras.

There were informal talks from the floor on timely topics, all of which yielded a measure of benefit to those present.

Mr. Philpott and Mr. Garo, for the benefit of interested members, obligingly criticized individual exhibits.

There were seven pictures selected by the jury, W. H. Towles and John H. Garo, for the 1915 Salon, as follows: portrait, by President J. P. Haley; portrait, by A. K. Peterson, of Hartford, Conn.; portrait, by Partridge Fenway Studio, Boston; portrait, by Manahan Studio, Hillsboro, N. H.; landscape, by George S. Hawley (amateur), of Bridgeport, Conn.; landscape, by A. E. Tingley, of Mystic, Conn.; and landscape, by Kimball Studio, of Concord, N. H.

The Wollensak Trophy Cup was awarded to the Partridge Fenway Studio, Boston. A similar Wollensak cup was won by a Partridge studio at the New England Convention last year.

The officers elected for 1916 are: Orrin Champlain, Boston, president; W. D. Hanson, Portland, Me., first vice-president; A. E. Whitney, Norwood, Mass., second vice-president; W. H. Partridge, Boston, treasurer; George H. Hastings, Newtonville, secretary. For state vice-presidents, Frank Hutchins, of Sanford, Me.; C. L. Powers, of Claremont, N. H.; A. Allyn Bishop, of Newport, Vt.; J. W. Godchaux, of Attleboro, Mass.; John Sabine, of Providence, R. I.; W. F. Donnelly, of New Haven, Conn.; and J. E. Sponagle, of Truro, Nova Scotia, for the Maritime Provinces.

Copley Hall, Boston, Mass., was again chosen as headquarters for the next convention, in 1916.

The Association emblem this year was a gilt button in the form of a lens — the "Eye of the Camera" — from a design of Secretary Hastings.



The usual banquet was held at the Hotel Lenox. The time usually taken up by speech-making was given up to dancing. Both occasions were enlivened by music from an orchestra composed of musicians from the German *S.S. Kronprinzessin Cecilie*, interned at Boston.

#### The Picture-Exhibits

Andrews Studio, Lakeport, N. H.; The Bartlett Sisters, Dorchester, Mass.; H. E. Bell, Hyde Park, Mass.; Bradford Studio, Boston; W. R. Call, Manchester, N. H.; Orrin Champlain, Boston; Commercial Photo-Company, Springfield, Mass.; Conway Studio, Boston; Dalton Studio, Plymouth, N. H.; H. Darley, Malden, Mass.; Donnelly Studio, New Haven, Conn.; Julia A. Eaton, Littleton, N. H.; Foisy Studio, Pawtucket, R. I.; F. A. Frizzell, home-portraiture, Dorchester Lower Mills, Mass.; Jared Gardner, Rockland, Mass.; Gay Studio, Fall River, Mass.; G. W. Godchaux, Attleboro, Mass.; J. P. Haley, Bridgeport, Conn.; Nellie Hall, Brookline, Mass.; Hanson Studio, Portland, Me.; Wm. C. Hart, Springfield, Mass.; George H. Hastings, Newtonville, Mass.; George S. Hawley (amateur), Bridgeport, Mass.; Kimball Studio, Concord, N. H.; Irving Kimball, Boston; Lindsey Studio, Manchester, N. H.; Manahan Studio, Hillsboro, N. H.; W. H. Partridge, Boston; A. K. Peterson, Hartford, Conn.; The Photo-Clan, Boston; Francis Place, Boston; H. H. Pierce, Boston; E. J. Poisson, Biddeford, Me.; Claude L. Powers, Claremont, N. H.; Henry O. Ryder, Auburn-dale, Mass.; John Sabine, Providence, R. I.; Geo. W. Tingley, Mystic, Conn.; Dwight M. Tracy (amateur), Norwich, Conn.; Geo. Van Norman, Springfield, Mass.; Vandall's Studio, Pawtucket, R. I.; G. F. Williams, Bridgeport, Conn.; Hallie Wilson Studio, Berlin, N. H.; R. J. Wynkoop, Bridgeport, Conn.

Dr. Arnold Genthe, black and white and color, New York; E. W. Histed, New York; Phillips Studio, Philadelphia; J. C. Strauss, St. Louis, Mo.; W. H. Towles, Washington, D. C.; The National Salon, 30 prints.

#### Dealers' Exhibits

Allison & Hadaway, New York. Finest display of autochromes at convention. Jno. Wesley Allison.

AnSCO Company, Binghamton, N. Y. Large display of prints on Cyko papers. W. A. Rockwood, J. A. Doherty, A. B. Cross, Frank Hearn, Frank Leach and John D. Rice. Continuous Cyko demonstration conducted by W. A. Rockwood.

Bridges Mfg. Co., Rochester, N. Y. Photo-mounts. California Card Mfg. Co., San Francisco and New York. Harry L. Burd.

Central Dry-Plate Co., St. Louis. Print-exhibit. Floyd M. Whipple.

A. M. Collins Mfg. Co., Philadelphia, Pa. Artistic photo-mountings.

Cramer Dry-Plate Co., St. Louis. Display of illuminated negatives and positives. R. B. Brackett and James W. Beattie.

Eastman Kodak Co., Rochester, N. Y. Display of portraits on Artura Iris, Artura Ægis, Contrast Velox and Azo. Display of Kodachromes, the newest process of color-photography for portraiture — the sensation of the convention.

C. P. Goerz American Optical Co., New York. Special lens for motion-picture cameras — the Goerz Kino Hypar, F/3.5. O. T. France.

Hammer Dry-Plate Co., St. Louis. Display of prints. C. Shafer.

Ralph Harris & Co., Boston and New York. Wellington plates and papers.

A. J. Lloyd & Co., Boston. Photo-supplies. H. M. Seaver and P. R. Guinan.

Robey-French Co., Boston. Studio backgrounds and furniture, and photo-apparatus. Thomas Roberts, Jr., manager, and Wm. G. Homeyer, Geo. A. McLaughlan, W. M. Snell and F. O. Avery.

Will Rounds, Autochromist, Lowell, Mass.

Sprague-Hathaway Co., West Somerville, Mass. Display of portraits in oil, watercolors and sepia. Chas. E. Wallis, Geo. W. Woodward and A. E. Clark.

Wollensak Optical Co., Rochester, N. Y. Photographic lenses. J. A. Dawes.

The photographic press: *American Photography* and *Popular Photography*, Miss Sadie Doucet; PHOTO-ERA, Miss Henderson; *Abel's Weekly*, Miss Clarissa Hovey; *The Camera* and *Bulletin of Photography*, Mr. and Mrs. Frank V. Chambers; *Photo-Miniature*, John A. Tennant; *Photographie News*, Carl E. Ackerman.

#### The Association Annual

The Association's official program, in pamphlet form, was creditable as usual. The illustrations were half-tones of portraits and landscapes by Bushong, Donnelly Studio, John H. Garo, Sabine, Bishop, Wilson, Hanson and Sponagle.

#### The Photographers Meet

MORE and more the camera is coming to be an indispensable implement of progress. The alert photographer is ubiquitous. No soldier of fortune braves more dangers and none takes them more serenely as merely an incident of the day's work. He perches upon the deck of a cockle-shell motor-boat in the path of a racing battleship to "get" the ocean-monarch "bow on." He goes as far into the depths of the earth as any miner to make a pictorial record of toil. And he poises himself upon steel beams forty stories above the street and takes his place beside the aviators to get pictures with "thrill." The increasing demand for photographs of the news is shown by the marvelous circulation of such a paper as the little journal which Lord Northcliff has pushed to a sale of more than a million copies a day.

And in these times every family also has its photographer — amateur for ordinary purposes and professional when "handsome" portraits are wanted, and this artist, whose aim is to please, corresponds to the court-painter of the older epochs. What those men of the brush used to do for the wealthy and the titled, these camera-men of to-day are doing for persons of all classes, and often they do it better. The New England photographers who are now debating their problems at their meeting here in Boston represent what has come to be a profession with which a great number of trades are affiliated. These artists, by their portraits and their pictures of the homes and the environments in which their patrons live, and the news-men with their action-pictures in the realms of sport, industry, even of war and every variety of danger, are supplying future generations with such a mass of records as the present and all the preceding generations would have been happy to possess. — *Boston Herald*.

#### Appreciation of Masterful Portraits

AMONG the photographers whose work was displayed in the various manufacturers' exhibits (plates and paper) at the recent convention of the P. A. of N. E. were: Baker, Beach, Beattie, Bradley, Brock, Buckley, Conklin, Doty, Garo, Gerhard, Goldensky, Knaff, Koehn, Larrimer, Littleton, Lochr, Marceau, Matzene, Roesch, Sarony, Schanz, Sehervec, Selby, Spellman, Steffens, Sweet, Sykes, Thuss, Towles, Townsend, Tyree, Walden, Walinger, Weston.

## LONDON LETTER

CARINE AND WILL A. CADBY

"SNAPSHOTS from Home, for Lonely Soldiers and Sailors" is the title of a pamphlet issued by Arthur K. Yapp, General Secretary of the Young Men's Christian Associations. It explains a scheme by which amateur photographers are to take snapshots of the wives and families of the soldiers and sailors on active service who at present are having long spells away from home. The idea has caught on, and offices have been opened in the Tottenham Court Road that we found being run in a surprisingly businesslike way, rather different from some of the hastily organized voluntary efforts. At present, we hear there are more amateurs ready than subjects to be taken; but, no doubt, directly the relations of the men abroad understand what it is proposed to do for them there will be a flood of "orders." Incidentally it has caused quite a boom in the sale of cameras, mostly of the better class, and it is at present difficult to estimate the future developments of the movement, which may become very far reaching. We propose to enter more fully into the subject next month.

Unless the photographs that come to London from our Overseas Dominions differ in some sort of manner from those we see around us here, there is little object (for us) in their having had such a long journey. Very evidently, those now on exhibition at *The Amateur Photographer's* Little Gallery have not taken the journey in vain. They are refreshingly different from those produced over here and, in a way, we cannot help feeling a little envious of the difference, for there is a bigness, an originality and freedom about this work which is very attractive and charming. Are we older hands getting too hidebound in conventions, we wonder. For some years, we all went ahead at such a fine pace: the French leading the way, followed by the English and Americans; and then came the newer German and Austrian school. Photographic exhibitions were thrillingly exciting, and there seemed to be no limit to what photography, as an art, could achieve. When one looks at it in retrospect, it appears as if these latter years have been mostly taken up with marking time. None of the old photographic giants has excelled himself, and no new startling genius has arisen. This may sound pessimistic; but one does not think that, because photography has been going slow for a bit, it will not go forward in the old strenuous way in the future, when probably the push will come from the younger, freer spirits of the next generation.

They are the ones who, armed with courage and conviction, are going to surpass the old standards. One comes across their work in PHOTO-ERA, and sees it here in this highly interesting collection Mr. Mortimer has assembled. Faults are to be found in abundance; but there is promise, which atones for so much.

There are some prints in this show that have a very peculiar quality, which is certainly unphotographic and somewhat resembles an old fine engraving. One was called "Majestic Gums," by Alfred Wilkinson, of South Australia. It had such a big, striking personality that it was difficult to get away from it. The photographer seemed to have caught the atmosphere of a primeval forest, and to us it was the most arresting print in the exhibition. How was it done? We could not help wondering. Probably the lighting was strong sunlight and the plate was slightly overexposed and then given very careful and slow development. All surmise, of course; but, as the French say, "It gave one to think."

There were one or two others of the same sort, notably that by Mr. W. Howieson, of Melbourne, called "Ti Tree," which had the same kind of effect.

The subject of exposure and development for snow-photography has very evidently been grasped by Mr. A. E. Hearne—a very prolific worker—for he shows a snow-landscape with trees which have light stems while yet his snow is white.

"The Spider," by J. E. Bush, of Cape Town, is a triumph. Here is no imitation spider and clever child-model which poses at our will and whose attitude relies on the title to tell the tale; here is an unconscious child who is fascinated and afraid of a real spider—nothing else would have brought forth that expression, nor the rapid snatch back of the little fat hand which just nervously doubled itself up into a fist when the photographer exposed the plate.

Another of Mr. Bush's prints is called "His Master's Footstep"—only a dog sitting outside a door; but un-



A TYPICAL SCENE IN ENGLAND TO-DAY



less one sees this, one would never believe so much could be expressed by an attitude. We do not see even the dog's face; but his taut back and his cocked ear tell the tale with unmistakable fidelity. Never again shall we be content with the tame photographs of dogs we meet here in the old world.

There is not room in the gallery for all the prints, so there is a portfolio on view as well, and it is one which will have to stand a lot of wear. This show raises curiosity as well as interest, and one wants to see more. We came across many child-portraits, all smiling; I do not think that there was one grave child in that batch of prints. Is childhood merrier in other climes, we wondered, or do our Overseas fellow-workers think that a child-study is incomplete without a smile?

In a recent letter, we referred to the big business being done by professional photographers all over the country in taking groups of soldiers. While staying in Scotland last month, we had an excellent view of these proceedings, for our window overlooked the hotel-garden. Many of our fellow-guests were officers going to the front, and this garden seemed to be a kind of headquarters for photographic farewell-groups.

While watching one such scene, it struck us that we might do a snapshot of it for our readers of PHOTO-ERA. We thought that it might interest them and, being so typical, would show them what is taking place all over the British Isles.

### Awards at San Francisco

THE following photographic exhibits in the Liberal Arts Building at the Panama-Pacific Exposition in San Francisco have been accorded official honors:

The Ansco Company, of Binghamton, N. Y., a Gold Medal of Honor for the New York Studio Outfit with Ansco Upright Studio-Stand, Ansco Printing-Machines, and Professional Cyko Paper; also a Gold Medal for Ansco Amateur Cameras, Ansco Film, Amateur Grades of Cyko Paper, Ansco and Cyko Chemicals.

The Eastman Kodak Company, of Rochester, N. Y., the only Grand Prize for hand-cameras (all styles); a Gold Medal for Kodachromes (color-photography) and photographic supplies and equipments, and a Gold Medal for photographic papers.

Albert E. Jacobson, of New York, a Gold Medal for Artatone Paper.

Schering & Glatz, of New York, Gold Medal for Assur Colors, the superb German products with which the photographic trade is pleasantly familiar.

Sprague-Hathaway Company, of West Somerville, Mass., makers of photo-enlargements and finished portraits, Gold Medal of Honor, the highest award in their class; also a Silver Medal for the artistic arrangement and the general appearance of their exhibit.

### Our July Cover

MR. L. L. HIGGASON, of Pelton & Higgason, studio-proprietors of Asheville, N. C., was the recipient of many well-deserved compliments for his delightful portrait of a young girl that decorated the front cover of July PHOTO-ERA, and which has elicited the admiration of pictorialists everywhere, even in Europe. Over 800 active members of the National Association received a copy of July PHOTO-ERA, and many of them, on meeting Mr. Higgason in the convention hall, were quick to express their satisfaction at the young artist's splendid ability. Mr. Higgason is a member of the Association, and his pleasant experience in meeting so many bright lights in the profession will serve to encourage him in his work.



## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.*

**THE SECRET OF EXPOSURE.** Edited by Frank R. Fraprie, S.M., F.R.P.S. Numerous illustrations. 16mo. Price, cloth, 50 cents. Boston, Mass.: American Photographic Publishing Co.

Realizing that correct exposure is the basis of successful photography, this subject has been made Number 1 of the Practical Photography series. In its revised and enlarged form it covers the subject concisely and comprehensively, and will prove a handy addition to any camerist's bookshelf. Considerable space is devoted to the H. and D. system, plate-speeds, shutter-efficiency, exposure-tables, classification of subjects and light-conditions, diaphragm-markings, variations due to latitude, and many highly specialized subjects, such as the many sorts of artificial light, moonlight, flashlight and objects moving at high speed.

**BEGINNERS' TROUBLES.** Edited by Frank R. Fraprie, S.M., F.R.P.S. 16mo. Price, paper, 25 cents. Boston, Mass.: American Photographic Publishing Co.

Number 2 of the Practical Photography library consists of a series of practical "do's and don't's" logically arranged from the camera, its choice and use, to the making of the finished print. As a study of common pitfalls must eventually lead to success through their avoidance, this scheme of treatment appeals to reason as a consistent method of instruction and one for which there is an undoubted need. The book is comprehensive and informative to the minutest detail.

### Old Dryplates

A CERTAIN indication of the present scarcity of dryplate glass is found in the frequent advertisements announcing the purchase of old plates, says *Photographische Industrie*. This scarcity is especially felt in the neutral countries. The leading Danish newspapers contain advertisements requesting photographers to sell their unusable cabinet-size plates. Notwithstanding that a great many English dryplates are sold in Denmark, there is a great lack of negative-material there, and as no dryplate glass is produced in that country they are under the necessity of buying up the old plates. The use of old plates for new emulsions is, however, not to be recommended unreservedly, for in spite of the utmost care in removing the old coating and pouring on the new emulsion it may very readily happen that when developed the plate will show noticeable traces of the previous picture.

### Death is But Transitory

IN a rural cemetery in south Florida there is a tombstone upon which a widow has had inscribed these words: "Rest in peace — until we meet again." — *Florida Times-Union*.

## Our Illustrations

(Continued from page 207)

is the chief object of interest. It is surrounded by shrubs and vines and shadowy masses, all quietly and deftly subordinated. Data: June morning; bright; Ica Bébé camera;  $2\frac{1}{2} \times 3\frac{1}{2}$ ; Tessar Ic;  $4\frac{3}{4}$ -inch focal length; stop, F/12.5; 5-time color-screen; 1 second; Seed Non-Hal. Ortho; Eastman M. Q.; 8 x 10 Cyko enlargement. The street-scene in Philadelphia, page 202, possesses unusual merit. The technical difficulties, which ordinarily confront the amateur in managing a subject of this sort, are not to be scoffed at, and in this instance have been overcome successfully. Judging from the title, the lofty tower of City Hall is enveloped in mist, although it might be merely a combination of smoke and fog. Data: June, 9 A.M.; misty, weak light; 8 x 10 Century View-Camera;  $8\frac{1}{4}$ -inch Goerz Dagor; stop, F/6.8;  $\frac{2}{5}$  second; Stanley; M. Q.; print, Cyko Studio, D. W.

The coquettish maiden, evidently in a cherry-ripe mood, the luscious fruit in lips, hands and hair, forms a dainty picture. The improvised festive attire and character seem well adapted to picturesque treatment, and Mr. Saucier certainly has shown a high degree of artistic skill in the management of his attractive model. Data: July, 12.30; dull light; 5 x 7 camera; 11-inch soft-focus lens; stop, F/8; 9 seconds; 5 x 7 Standard Orthonon; M. Q.; 5 x 7 print on Barnet Bromide Smooth; M. Q.

Group of Honorable-Mention Pictures, page 200. Data:

"Old Dutch Church," by Edgar Rutter; May 29, 1915; light clouds; 3.15 P.M.; camera in shade; 3A Kodak; Eastman N. C. Film; M. Q.; B. & L. R. R. lens  $6\frac{1}{2}$ -inch focus; stop, U. S. 8;  $\frac{2}{5}$  second; print on Velvet Velox, Nepera solution.

"The Close of Day," by Myra D. Scales; July 14, 1915; 6.30 P.M.; fading light; 3 Kodak; Eastman N. C. Film; M. Q.; R. R. lens; stop, U. S. 8;  $\frac{2}{5}$  second; print on Professional Cyko, No. 2.

"Portrait," by C. K. Teamer; April 11, 1915; evening, at home; 5 x 7 Korona view-camera; Peerless R. R. lens;  $9\frac{1}{2}$ -inch focus; stop, F/5;  $1\frac{1}{2}$ -time color-screen; 10 grains Victor flashpowder in bag; 5 x 7 Cramer Inst. Iso; M. Q. in tray; time, about 7 minutes; 5 x 7 print Prof. Cyko Buff; 25 seconds, 15 inches from Inverted Gaslight.

"A Pleasant Walk," by George W. Dell; May, 3 P.M.; 5 x 7 Century; 8-inch Wollensak R. R., at U. S. 16; light clouds over sun;  $\frac{1}{2}$  second; Imperial N. F.; pyrosoda; Kodak Bromide print.

"Brook and Woodland," by Sylvanus Smith, Jr. No data.

"A Dull Day," by Louis R. Murray; July, 5.30 P.M.; weak light; 5 x 7 plate-camera; pinhole No. 6; 5-inch bellows-extension; 2 minutes; Standard Portrait; hydroduratol; print on Rexo Semi-Matte. Print appears underexposed.

"Conservatory," by Fred W. Sills; June 30, 1915; 3 P.M.; bright; 5 x 7 Premo; 7-inch Goerz Dagor; stop, 64; 5 x 7 Standard Ortho; hydro-metol; print on Cyko Normal Studio.

## Photography in a New Role

GAS-METERS in New York City are to be photographed hereafter by meter-readers in order to ensure greater accuracy. A small film-camera is designed to fit over the indicator of the gas-meter, and by pressure of a button a flood of electric light is thrown on the dials for making the exposure.



ADMIRATION

JOSEPH HOFFMAN

## The Value of Practical Ability

It is very gratifying to know that Mr. Joseph Hoffman, the energetic sales-manager of Ernemann Photo-Kino-Works, Inc., New York City, can back up the claims he makes for his firm's cameras by actually practical photographic ability. There are some demonstrators who can talk very successfully about the merits of the cameras in which they are interested; but when it comes to make successful pictures with these instruments, they are quite incapable. Knowledge is surely power in the case of selling photographic goods.

## Girls in the English Photographic Industry

It is curious to note how, as difficulty after difficulty arises in the photographic trade, means are forthcoming to meet the same. The great shortage of assistants has become quite a serious problem; but on the other hand smart girls are already occupying the positions in numbers of establishments, and are proving themselves quite capable to fill the posts. Girls should certainly be used for all printing and developing, as they are particularly suited by their habits of method, neatness and cleanliness. Young women have for many years reigned supreme in the photographer's reception room, as well as at the retouching-desk, and this war is going to show us that they are competent to fill many posts which have hitherto been considered beyond their powers. — *The Photographic Dealer*.

You cannot dream yourself into a character.  
You must hammer, and forge yourself one.

— Froude.



# WITH THE TRADE

## A Special Cooper Hewitt Tube for Enlarging

THIS new "gridiron" type obviates the need of expensive condensing-lenses and of frequent adjustment, yet illuminates negatives up to 8 x 10 with absolute uniformity. The intense purple glow emitted is without flicker, glare or variation, and has all the good qualities of daylight at its best. Indeed it brings out the roundness and atmosphere of the negative without accentuating the retouching or grain. With either alternating or direct current it gives a strong, even field with two sheets of ground-glass for diffusion. The outfit is described and illustrated in Bulletin 2561, which will be sent to any one interested by the Cooper Hewitt Electric Co., Hoboken, N. J.

## To Owners of Ingento Junior Cameras

THE manufacturers of the cameras desire to obtain a splendid collection of negatives made with and showing them in use. These will be used for advertising-purposes, and a gross of Rexo paper of corresponding size will be paid for each subject accepted. Send unmounted prints for inspection to Burke & James, Inc., 242-244 East Ontario St., Chicago, Ill. Do not send negatives until accepted.

## Sigma Plates Now in Stock

R. J. FITZSIMONS, 75 Fifth Avenue, New York City, the sole United States agent for Lumière-Jougla products advises us that a new supply of Sigma plates has been received and that he will be able to fill orders for this extremely rapid emulsion for some time to come.

## New Burke & James Eastern Office

THE New York offices of Burke & James Inc., 225 Fifth Avenue, have been moved from the ninth to the tenth floor of the same building, into quarters affording more than four times the space originally occupied. This makes it possible to carry a much larger and more varied stock of supplies for the benefit of the Eastern trade.

## Artatone Paper

ALBERT E. JACOBSON, the maker of Artatone Paper advertised in this issue, states that his product received a gold medal awarded for photographic paper at the San Francisco Exposition. On account of its delicate character, Artatone paper is capable of a variety of artistic effects, easily and cheaply produced.

## Prosch in a New Factory

THE PROSCH MFG. CO., 213 Pearl St., New York City, whose flashlight-apparatus and flashpowders are coming into such wide use by the leading men of the photographic profession, have recently moved into a new factory with much larger accommodations and better facilities for serving the trade. It is interesting at this time to recall the fact that this is one of the very old firms in the photographic business, the industry having been founded in 1862.

## Photo-Finishing by Mail

HIGH-CLASS photo-finishing by mail — to have one's exposed films converted into negatives, prints and enlargements in a strictly first-class manner, and to be relieved of all effort and anxiety, by simply dropping the film into a mail-box is a source of great satisfaction. Paul J. Weber, of Dorchester Center, Mass., is an all-around photographic expert, and gives personal and prompt attention to every order, however small. This accounts for his remarkable success. Mr. Weber is the latest accession to our Blue-List of reliable advertisers.

## A Popular Picture

A PHOTOGRAPHER in the Middle West, who has come into favorable notice of late, is R. C. Nelson, of Hastings, Neb. One of this artist's most successful pictures made a deep impression at the 1914 New England convention — a genre portrait of his son, and published in PHOTO-ERA as "The Violinist." At the Exposition of Photographic Arts, in the Grand Central Palace, New York, last March, his portrait of a little girl was awarded the gold plaque — the highest award. It was produced with the aid of the Halldorson Home-Portrait Lamp.

## The Rexo Guide

THOSE of our readers who have found in Rexo and Enlarging-Rexo the very papers they were looking for will welcome the appearance of this attractive little pocket manual. This 48-page booklet is brim full of helps for the manipulation of Rexo of all grades. It tells how to choose the proper grade for each negative, how to expose, develop with any one of several suitable developers, fix, wash and mount; in fact, how to standardize the printing-process. There are also formulæ for sepia, red, green and blue tones. A copy of this booklet may be had direct of Burke & James, Inc., 242-244 East Ontario St., Chicago, Ill.

## Who is "Hicro" Smith?

MR. WILBUR C. SMITH, formerly with the Goerz American Optical Co., has identified himself with the Hess-Ives Corporation, of Philadelphia, inventors and makers of the Hicro-Camera, an apparatus for producing photographs in color. Therefore, "Hicro" Smith, as demonstrator of the Hicro Camera and successor to "Stereo" Smith, will be busy making new friends.

## The Hylo Ruby Light

HYLO MAZDA electric lamp-bulbs which, by the mere pulling of a string give two different candle-power lights, have filled a long-felt want in many places other than the home. Their latest adaptation is to photographic purposes as a ruby-light for the darkroom. They are completely frosted and tipless, and the natural ruby-glass is of much greater depth on one side than the other, thereby providing greater control when highly sensitive plates are being developed.

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**To Advertisers:** Advertising-rates on application. Forms close on the 5th of the preceding month.

**Published Monthly,** on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain,** Houghtons, Ltd., 88-89 High Holborn, London, W.C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

WILFRED A. FRENCH, Ph.D., Editor and Publisher

PHIL M. RILEY, Associate Editor

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383 Boylston Street, Boston, Mass., U. S. A. Cable Address, "Photoera "





DAGUERRE MEMORIAL, WASHINGTON, D. C.  
THOMAS W. SMILLIE



# PHOTO-ERA

The American Journal of Photography

Vol. XXXV

NOVEMBER, 1915

No. 5

## Louis Jacques Mandé Daguerre

WILFRED A. FRENCH



THE year 1789 was a momentous one for human progress — the Paris populace stormed the Bastille, which incident marked the beginning of the French Revolution and the end of political despotism, and Daguerre was born, he, the inventor of photography! Photography enjoys the distinction of having contributed more to the happiness of mankind than any other art or science; and, while fully sensible of the eminent services of Fox-Talbot, Archer, Wedgewood, Schulze and Niépce in developing individual phases of photography, we are constrained to pay homage to the one man who, by his creative power and persevering research produced the sunlight-picture *par excellence* — the daguerreotype. In referring to the charm of the daguerreotype, "Nemo" writes, in the *Nottingham Guardian*: "I can never look unmoved on a daguerreotype. About these early sun-paintings there is a charm and a fidelity that are captivating, and a pursuance that is truly wonderful. There are other tale-telling things as well. These relics of the past are treasure-houses not only of the artistic taste of that time, but of the beauty of form and expression of a bygone generation. The daguerreotype-process revealed no flat-chested, angular women. The ladies' costumes, too, are often so elegant that one wonders why the Worths of to-day do not go to them for their inspirations. There is something fine in the bearded faces of the men, with their well-fitting frock-coats, flowered waistcoats and stocks. Above all, one gets the impression that the faces that look at us out of the daguerreotype are the faces of real men and women. For retouching and 'faking' — the former quite necessary, I allow, in the rapid processes of to-day — were unknown to the fathers of the 'black art.'"

Louis Jacques Mandé Daguerre first saw the light of day at Cormeilles, near Paris, November 18, 1789. He was by profession a scene-painter — the greatest that ever lived — and originated the

diorama. His father was court-crier at Cormeilles, and during the fearful times of the French Revolution lost his position, which necessitated a change. The family chose Orléans as its next place of abode, taking with them Louis, who was then five years old. He attended the public school, and showed an early aptitude for drawing. At the age of thirteen, he is said to have produced creditable portraits of his father and mother. This evidence of artistic skill induced his father to place him in a local architect's office where he became proficient in tracing. This occupation did not interest him, however, and in 1803, at the advice and with the assistance of his father, he went to Paris, where he entered the employ of Degotti, a successful scene-painter. The youth of sixteen had at last found a vocation to his liking and he progressed rapidly, developing technical ability, an inventive faculty and a decorative sense, of which he made excellent use in new and striking stage-effects. The managers of the principal theaters in Paris were only too glad to avail themselves of the products of his originality and skill. Through his experience gained by assisting Pierre Prevost in painting panoramas of London, Rome, Naples, Athens and Jerusalem — which were exhibited between 1816 and 1821 — Daguerre conceived the idea of the diorama, a creation with which his name was brilliantly associated. To materialize this idea, he associated himself with Burton, in 1823, and a circular building, designed by Daguerre, was at once erected. In the center was the circular platform for the spectators, which was made to rotate in order to bring the pictures successively into view. In 1830 Daguerre introduced his diorama with double effect. The pictures were painted on both sides of a thin canvas and lighted at the back and top. By changing and manipulating the lights in an ingenious manner, exceedingly novel and beautiful effects were obtained. This method was particularly successful with interiors, day- and



night-scenes and similar subjects, and enjoyed a great vogue. During this activity Daguerre found time to paint a number of successful easel-pictures which were hung at the various exhibitions. It was in 1824 that he yielded to the long-cherished desire to fix the camera obscura picture, and he was soon immersed in a flood of study and research, in the course of which he made experiments that were ingenious and original.

The following is an outline of Daguerre's experiments which culminated in the final, successful step to his invention. Among his several trials with the resin derived from distilling the essence of lavender, Daguerre discovered that a silvered copper-plate sensitized with the fumes of iodine could be impressed by a luminous image. He exposed such a plate in the camera, but it proved to be under-timed, as there was no visible image. Somewhat irritated, he placed the plate in a closed cupboard where he kept his various chemicals, intending to clean it and use it again. On the following morning he discovered to his astonishment that the latent image had been

developed into a clear and visible picture! His intuition told him at once that the cabinet contained the cause of this miraculous transformation. He now exposed another plate, under-timing it like the first one, placed it in the cabinet, as before, and, after a given length of time, he examined the plate and was overjoyed to discover again a developed image. In order to determine which of the various agencies in the cabinet had caused this phenomenon, he continued the experiment by placing in the cabinet one freshly exposed plate after another, and each time removing one chemical until, at last, there remained only a crucible containing some quicksilver (metallic mercury). He suspected at once that the quicksilver was the mysterious developing-agent, for he knew that, even at ordinary temperatures, the metal emitted vapor. He now took a flat metal dish, into which he poured a small quantity of quicksilver, and heated it over a spirit-lamp. Over the dish he placed an exposed plate and discovered that the mercurial vapor condensed at those parts which had been exposed to the light, and thus the image was developed into a brilliant picture of great delicacy and purity. The point now was to make the picture permanent, and he found that repeated washing in a strong solution of common salt completely removed the unaltered iodide of silver; but this procedure did not result in really beautiful pictures. Shortly before, Herschel had announced that sodium hyposulphite possessed the property of completely dissolving the silver haloids, an idea which Daguerre was not slow to adopt.

Hearing that another investigator, Joseph Nicéphore Niepce, had also been experimenting in various ways to produce pictures by the action of sunlight, Daguerre approached him and the two exchanged views. After a number of meetings they formed a partnership — in 1829 — to continue for ten years, each to work assiduously for their joint benefit. Niepce died in 1833, in his sixty-ninth year, without having made any important advance in his original process. After the death of his associate, Daguerre prosecuted the work with unremitting vigor, but along his own, original lines, eliminating every suggestion of Niepce's methods. By the year 1837 he had made such rapid progress that he could not resist the temptation to communicate his joy and satisfaction to Isidore Niepce, who had succeeded to his father's interests, and with whom he made a supplementary agreement, to wit: "I, the undersigned, hereby declare that Monsieur L. J. M. Daguerre, painter, and member of the Legion of Honor, has communicated to me a process of which he is the inventor. This new



DAGUERRE'S HOME AND STUDIO, PARIS



*From a daguerreotype*

LOUIS JACQUES MANDÉ DAGUERRE  
CHARLES MEADE, 1848







DAGUERRE MEMORIAL INSTITUTE, WINONA LAKE, IND.

GEORGE G. HOLLOWAY

method has the advantage of reproducing objects with sixty to eighty times the rapidity of that invented by Monsieur J. N. Niepce, my father. As a result of this communication, Monsieur Daguerre consents to turn over to the partnership the new process of which he is the inventor, and which he has improved, on condition that this new process shall bear the name of Daguerre only." Repeated attempts were made to organize a company to put the invention on the market, and, as is usually the case with a really good thing, they were not crowned with success. Finally, Daguerre, then fifty years old, decided to enlist the aid of the government through the medium of Arago, the eminent astronomer and physicist, by whom the invention was announced and explained in detail in the Academy of Sciences, in 1839, before one of the largest meetings ever held by that body. Arago's address produced a profound sensation and a favorable though not entirely adequate result. A life-pension of 6000 francs was granted by the Chamber of Deputies to Daguerre, and 4000 francs to his associate, Isidore Niepce, on condition that the process be made public, which was done. The new art was christened "The Daguerreotype." It was rumored, at the time,

that the Russian government stood ready to give 500,000 francs for Daguerre's secret, and the English papers expressed themselves as amazed that so magnificent a reward had been declined; but material temptations had no effect on the conscientious, patriotic Frenchman, who preferred a modest income and the satisfaction to have rendered a direct service to mankind. Daguerre continued to make improvements in the art as long as he lived, and published several treatises on the subject. He died, at Petit-Brie-sur-Marne, July 12, 1851, and lies buried in the churchyard of that little village, which also contains a monument erected to his memory.

Another but more elaborate monument to Daguerre is in Washington, D. C. It was erected in 1890, by the Photographers' Association of America, from a design by the American sculptor, J. Scott Hartley, at an expense of \$8,000, and stands on the grounds of the Smithsonian Institution. For grace and beauty of design, this tribute of esteem and affection is worthy the fame of the illustrious inventor, and speaks well for the taste and generosity of the projectors. The bronze likeness, modeled from a daguerreotype, has been pronounced an admirable one by distinguished connoisseurs; and as to the maiden,

typically French in face and figure, she expresses the sentiment felt by every appreciative exponent of photography the world over. It is sincerely to be hoped that the approaching natal day of Daguerre — the eighteenth of November — will be commemorated by the photographers of America, particularly as the services of La Fayette, Rochambeau and De Grasse, rendered this country in an hour of grave peril, do not appear to be as precious in the nation's mind as they should be. No doubt Washington's handsome memorial will be the object of special demonstration at the hands of the local photographers. Nor should the Daguerre Memorial Institute, at Winona Lake, Indiana, be forgotten. The building has been rented permanently by the Photographers' Association of Indiana, and is dedicated to the highest ideals in photographic portraiture.

Of course, Daguerre's method was improved in several respects, particularly the sensibility of the plate and the gold-toning. The following, then, is an epitome of the process as practised by the leading craftsmen during its best period.

**Preparing the plate.** The base of the daguerreotype was a sheet of copper cut to a regular size,  $2\frac{3}{4} \times 3\frac{1}{4}$ ,  $3\frac{1}{4} \times 4\frac{1}{4}$ ,  $4\frac{1}{4} \times 6\frac{1}{2}$ , or  $6\frac{1}{2} \times 8\frac{1}{2}$ , provided with a thin coating of pure silver, done either electrically or mechanically. The plate was given an extremely high polish, by means of very fine rouge powder or powdered pumice-stone mixed with olive-oil. Sometimes the plate was burnished by means of a lathe, or buffed, laboriously, by hand, the plate being heated over a spirit-lamp meanwhile.

**Sensitizing the plate, A.** The plate, highly polished and scrupulously clean, was then placed, face downward, on a light-tight box of suitable



DANIEL WEBSTER

*From a daguerreotype*  
JOSIAH HAWES

size — over a dish containing crystals of iodine, the fumes of which attacked the plate. This sensitizing-process took considerable time, as it was not safe to heat the iodine.

**Sensitizing the plate, B.** The iodized plate was next exposed, in a similar manner, to the fumes of bromine, until it took on a rose color, when it was subjected again to the iodine-vapor. As soon as the plate had assumed a golden yellow tint, it was ready to be exposed in the camera.

**The exposure.** Success depended greatly on the correct exposure of the plate to the fumes of the iodine. With Daguerre's original method, the plates were not very sensitive and required an exposure upwards of thirty minutes. At first, only outdoor-subjects were photographed. In order to shorten the exposure, it was customary to whiten the face of the sitter with powder, and



then mask it by means of a piece of black cloth attached to a long stick, while the dark portions of the figure, such as the dress, received the necessary exposure. Later, when the sensitiveness of the plates was increased, the exposure was merely a question of seconds.

**The Development.** This was accomplished by submitting the exposed plate to mercurial vapor—Daguerre's personal discovery. The plate was placed, obliquely, in a light-tight box, over a cup containing metallic mercury. A spirit-lamp under and outside the box caused the mercury, heated to a temperature of  $140^{\circ}$  to  $167^{\circ}$  F., to vaporize. This process could be carefully observed by artificial light through an opening in the side of the developing-box. When the desired temperature was reached, the spirit-lamp was removed and the temperature allowed to fall to  $130^{\circ}$  F. The latent image now began gradually to appear, and as soon as development was complete—which took about five minutes—the plate was removed to a grooved box and protected from the light until it was convenient to complete the operation.

**Fixation.** After a slight rinsing in distilled water, the plate was fixed in a 10-percent solution of sodium hyposulphite and washed in warm distilled water.

**Gold-toning.** The clearness and beauty of the daguerreotype were much enhanced by treatment to a solution of *sel d'or* (gold hyposulphite), which also made it more permanent.



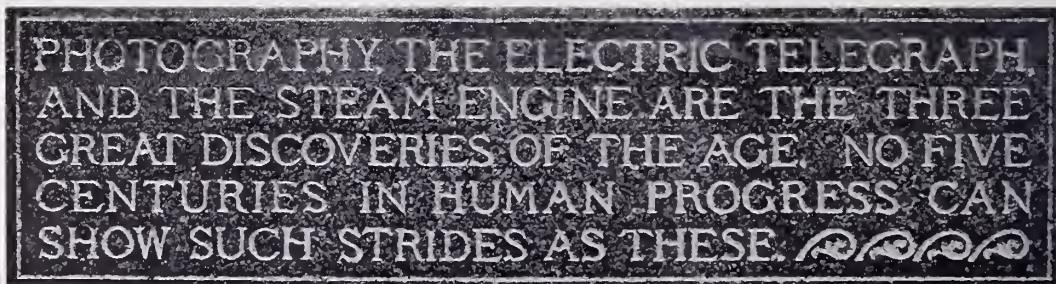
JOSEPH H. CHOATE

*From a daguerreotype*

BY JOHN A. WHIPPLE

Although the daguerreotype has stirred the world as few inventions have done before or since, and numbered among its patrons the greatest men and women of the period, it was destined to give way to improved and less expensive processes. The chemicals themselves were cheap enough, but each picture was required to be made upon the highly polished surface of a silvered copper tablet. At first, success did not attend every exposure, and much time and pains were necessary to prepare the numerous poorly timed plates for renewed use. Many an enterprising photogra-

pher with insufficient capital could not stand such constantly recurring losses, and, consequently, gave up the business. Nevertheless, the daguerreotype-process was practised in every part of the civilized world, and in no country did it flourish so long and so successfully as in the United States. In private families and museums may still be seen, in an excellent state of preservation, daguerreotype-portraits of such famous Americans as Calhoun, Choate, Webster, Sumner, Irving, Hawthorne, Cooper, Bryant and Poe. When kept with care, and from chemical and climatic influences, the daguerreotype has retained its pristine and peerless beauty. Despite its extremely delicate surface, the daguerreotype is capable of being restored, if stained or otherwise injured; but this work should be trusted only to a specialist of recognized reliability. Above all, persons not experienced with the diffi-





CURLY HEAD

WILLIAM C. NOETZEL

cult work of restoration should not attempt it, except, perhaps, when nothing is at stake. Prompted by a laudable desire to serve the interests of their readers, publishers of technical magazines have given directions for repairing injured daguerreotypes, and, in trying to follow such advice, novices of inadequate skill have succeeded only in doing irreparable damage to masterpieces of a virtually lost art.

There are photographic writers who assert that the daguerreotype-process is a negative one. This is an error. The daguerreotype, while not really a positive, presents a reversed image — very similar to that of a ferrotype. It is rather a

negative of exceeding thinness, virtually transparent, seen against the mirror-like surface of the underlying silvered plate.

In closing this rather inadequate sketch of Daguerre, let me quote a tribute paid the great Frenchman by the most eminent living authority in photographic science — Dr. J. M. Eder, of Vienna. "The undying honor to be the first to have utilized silver iodide as a light-sensitive substance in the camera obscura; the discovery of the development of the scarcely visible image by means of mercurial vapor, and the discovery of the fixation of the silver-image belong exclusively to Daguerre."





# How I Pose the Sitter

ORRIN CHAMPLAIN



**F**EW of us appreciate fully that it is an event of importance in the minds of our patrons to have their photographs taken. The average person sits for his picture on three or four occasions — in childhood; again at graduation time; when he is married, and later in life for the benefit of his children. From this it can be readily understood how necessary it is to give each individual the best impression of his personality and a quality of workmanship that has merit.

The average photographer must be versatile in order to make his work possess qualities that will appeal to all the members of the family. I would suggest, therefore, that he feature strength and character in the father, nobility and dignity in the mother, beauty, grace and modesty in the young girl, and sweetness and simplicity in the child.

Manliness is best featured by aggression of the lower part of the face, modified to harmonize by broadness of the upper part. Motherhood is best expressed by kindness of expression in the eyes intermingled with firmness and sweetness, as best expressed in the lower part of the face.

My experience tells me that by slightly tilting the chin to the most agreeable angle, one can indicate almost any degree of character and strength. To impart sweetness of expression, lower the head; to give dignity, raise it. By adjusting the light, one can feature the eyes so as to indicate the expression that most appeals to him. The expression of the eyes is most important. I would recommend the Rembrandt method of lighting as the most applicable to complimentary photographs. If the neck is too wide, too gross or animal, turn it until it is less objectionable. Heaviness of chin may be overcome by thrusting it forward.

I have observed women under nearly every condition of emotion, and I have found that, when enjoying the most satisfying emotions of pleasure, they have invariably suggested them by delicate and graceful movements. To illustrate: the index finger and the thumb are immediately brought into play, indicating strength and stability as represented by the outer or smaller parts of the hands, which represent delicacy and beauty.

It is a misfortune that in our hurry we have not the time to become thoroughly acquainted with our subjects. It is, therefore, necessary to get an opportunity to make the sitters feel as much at ease as possible, and to obtain ideas of

their desires regarding their portraits. It is, therefore, my custom to ask or discover how they wish their photographs taken. They usually express their preference for a bust photograph. Let me illustrate:

Seating the subject, I say, "Please turn your head this way," my first thought being to note the contour of the hair, which I arrange as expeditiously as possible. "Please raise your chin slightly"—you will see from this point of view one of the beautiful lines of the shoulder from the lower point of the ear to the point of the shoulder, which, made by this method of lighting, harmonizes with sufficient contrast with the beauty which comprises one of the best lines in this particular pose and method of lighting. You will now in this position arrange the focus of the eye, saying, "Look on my hand," until the light appears in the eye at an angle of 45 degrees, which gives to the expression the most delicate appearance that can be obtained, remembering that in this position you should feature the eyes always when the lower part of the face is in shadow.

From this position I turn the head slightly to the left, still arranging the light to fall at an angle of 45 degrees, and I obtain a light which features the entire front of the face, also still preserving a line in the neck which is beautiful. In nine cases out of ten, both of these positions are selected by the customer. It is policy to make these two poses first. During the operation it will be observed that the sitter is becoming more interested, and, feeling the influence of her disposition, I proceed to arrange the next position.

I tell her to "look in this direction," and I feature the smile, or the expression which is most natural. You will observe that I always retain the beautiful lines of the neck, and no discord of lines is evident in this method of posing and lighting.

Then if, the subject being a young girl, I desire to put a little added sweetness into her personality, I turn the shoulder first, then gently tilt her head on the side, still keeping in mind the arrangement of the outer lines, and tell her to look into the camera, where she will observe her own likeness. The result is pleasing to those that see her in this attitude. This pose is always allowable with young girls and children.

If the girl's mouth expresses beauty in the extreme, it is better to tilt the head from the light, otherwise invariably to tilt the head toward the



THE BEAUTIFUL LINES OF NECK, SHOULDERS AND ARMS



THE WALTZ-STEP





THE SWEETNESS OF GIRLHOOD



DELICACY AND BEAUTY EXPRESSED BY THE HAND

ORRIN CHAMPLAIN

light. These poses may be varied to harmonize with the lines of the subject. The artist's mind is influenced by the personality of his patrons, and this is done by keeping in touch with them.

I now proceed to pose the young lady for a three-quarter length portrait, selecting a piece of furniture which, in my judgment, harmonizes best with the gown. As I said previously, next to the human face, character and beauty are expressed best by the arrangement of the hands. I would suggest that the extreme styles of the present day compel you to use the line of strength in the hand, in order that the subject will not look too flighty or frivolous. I am not one of those who desire to regulate the ideas of our women regarding dress, because I believe that they dress more artistically and sensibly than ever before.

In the posing of the hand I observe only the outer line; you will note the upper and lower line of the wrist, and the curve in the fingers and, on the whole, keeping in mind the posing and the lines of the hands to a greater or lesser degree. The line of strength in the hand is that of the index finger; that of beauty the line of the little finger.

I then move the left foot back, bringing the right foot forward so as to continue the line and make the size of the picture pleasing. It will be observed that in this pose the lines of the upper part of the body are the same as in the bust picture. I now make this exposure and, perhaps, fear that I have not accomplished what I desired, so I ask her to pose again, and in this position still note the lines to which I have previously called attention.

I then incline the body forward gently to put a little animation into the subject. Going forward, I notice that the young lady's hands are particularly well formed and I proceed to pose her accordingly. Another important feature of the hands is to have no two spaces between the fingers exactly the same. In this arrangement it is noticeable that the elbow is not pleasing, so I cover it up. Here the smile is always allowable.

Music, poetry and art are first cousins, and particularly beautiful are women when under the influence of music. Nowhere can they be seen to better advantage than in a ball-room. To my mind, there are no foot-movements that express more beauty and grace than the waltz-step, and under the swaying influence of music within your heart, you can influence your subject to respond to those feelings which inspire you. I always pose my subjects for a standing or full-length portrait by using one of the three movements of the waltz-step, thus bringing out every line that is beautiful and harmonious. It is not out of place to give a young girl a flower.

You then proceed; and if you have a sitter who is no longer young, gently place her in a position which will make her look more dignified and in keeping with the natural environments and surroundings. Should it happen that you do not like the first pose, change it to the second — still observing the lines. If the sitter looks too large in a front view, turn her away from the camera until the lines appeal to you.

Rest assured that if it pleases you, your subject also will be pleased. After all is said and done, we are all conscious of our defects, although we may not admit it.

## Using Old Negative-Glasses

E. J. WALL, F.R.P.S.



NE of the many consequences of the European war has been a shortage of the glass for dryplates, and this has been felt not only on this side but in Germany, where some of the plate-makers are willing to purchase old negatives in order that they may again coat the glass.

The reason for the shortage is due to the fact that almost the whole of the photographic glass comes from three countries, Belgium, France and England. Unfortunately, one has to admit that virtually Belgium has been temporarily wiped off the map and its industries shattered. The French glass-factories have in part also been obliterated, and the available labor has some-

what more serious things to consider. These two sources of supply have been dealt with first, because they were the chief ones. England — to the best of my belief — has supplied mainly only the largest sizes of glass. It is from the two former countries that the bulk of the more current sizes of plates has been obtained for the world. This fact is due mainly to the extremely low cost of labor. An exact comparison is not possible without accurate data, which I do not possess; but speaking from personal experience labor, both in France and Belgium, must be, at least, 50 to 60 percent cheaper than in the United States.

There are two points which have to be con-



sidered if old negative-glass has to be recoated. First, what is the smallest size that it pays the plate-maker to coat? Usually the smallest size is a  $6\frac{1}{2} \times 8\frac{1}{2}$ ; this can be sent out in that size or, if the glass is thin, it can be cut into the familiar quarter-plate ( $3\frac{1}{4} \times 4\frac{1}{4}$ ). In England, at any rate,  $4 \times 5$  plates are cut from an  $8 \times 10$  sheet after coating and  $5 \times 7$  from a  $7 \times 10$ . Generally, larger sizes than the whole plate are coated as such. The reason for cutting the smaller sizes from larger sheets is that it takes just as much rack-space in the drying-rooms to dry a gross of  $4 \times 5$  as it does to dry a gross of  $8 \times 10$ , and obviously, in the latter case, one eventually obtains just four times the number of plates. But assuming that there is a serious shortage of glass, then the plate-maker will find it an advantage to coat smaller sizes, even although this entails more labor and, possibly, a greater waste. I know that at the beginning of the war one dry-plate firm actually coated, temporarily at least, quarter-plate glass. It is obvious that, by using old glass, we can bridge over the shortage.

The second point is, can old negatives be cleaned so thoroughly that the glass can be made fit for recoating?

This is denied by some persons, and they state that there remains on the glass a trace of the negative originally produced thereon. If this statement is the result of actual experience, then I can only state that it shows that somebody does not know how to clean glass — that is all.

It is a tradition in photographic circles that glass which has once been used for negatives cannot be recoated. I have never been able to trace this tradition to its primeval source; it certainly dates back to the old collodion days when probably some careless, dirty worker did not clean his glass properly, and thus obtained traces of the primary image and immediately rushed into print, and without examination the statement has been handed down by generations of writers — who are not always practical men — to the present day.

There are too many such instances to be found, and not only in photography. For instance, there will be found in most textbooks on physics a description and diagram of a Rumford photometer, that has become hoary and moss-grown, and certainly Rumford never used such an instrument. One bell-wether set the fashion and the rest of the flock have merely followed blindly.

To the photographer who wants to sell old negatives, there are two courses open. He can either sell them as they are, or he can clean the glasses and preserve the silver for his residuetub. If set about the right way, this latter plan would probably pay him. ¶The simplest method —

if a metal tank with grooved rack is available — is to fill the tank with boiling water, immerse the negatives, and in a very few minutes the gelatine will have melted. Moving the rack up and down two or three times will make the glasses fairly clean, and a rinse in water is all that is required. The grooved rack may again be filled with negatives and the operations repeated until the water becomes quite thick. Most of the metal tanks will stand heating on a gas-stove, if the flame is not allowed to impinge directly on the joints, and this can be avoided easily by using an iron hot-plate.

Another method to clean the glass is an excellent one, as it requires no heat and the film is obtained in a moist condition and not liquid. It is merely the adoption of a stripping-method by the aid of hydrofluoric acid. The negatives may be immersed in a 5-percent solution of this acid for about fifteen minutes, and it will then be found that the film can be easily removed by the aid of a small scrubbing-brush, and a rinse in warm water will make them clean.

The only drawback to this method is that porcelain or enamel trays cannot be used, as the acid attacks them; it also makes the finger-nails very soft and sore. Of course, one can use rubber-gloves; but by far the better plan is to soak the negative in a 2-percent solution of potassium or sodium fluoride for fifteen minutes, then drain and immerse in a similar-strength solution of hydrochloric acid. This reacts with the fluoride absorbed by the film, sets free fluorine acid which loosens the film from the glass. Naturally, any other method of stripping may be used, such as that with formaldehyde and caustic soda, followed by an acid; but this latter method takes more time.

For cleaning the glass — preparatory to recoating — most plate-makers have their own method; but for old negatives there is nothing superior to chromic acid. The most convenient way to prepare this is to make a 10-percent solution of commercial sulphuric acid and add 10 percent of potassium bichromate and heat to about 110 degrees F. Old negative-glass immersed in this will come out absolutely freed of any trace of silver and will require only washing in the machine in the usual way.

This method was adopted in England for commercial purposes when the firm I was connected with bought a lot of old collodion and gelatine negatives. We never found the slightest trace of the primary image, nor did we get black spots. There must be thousands of large negatives distributed over the country which are absolutely valueless and which might very easily be made available for recoating.





PARING POTATOES

JEANNE BENNETT





STRATFORD MARSH

GEORGE S. HAWLEY

NEW ENGLAND PHOTOGRAPHIC SALON, 1915

## Photography for Advertising-Purposes

ROBERT F. SALADÉ



FOR several days business had been inactive in the Holden Portrait-Studio and the philosophic proprietor, Thomas Holden, considered it an excellent opportunity to improve the general appearance of the place. Through rearranging the furnishings, and adding a few new articles, within a few hours a pleasing transformation took place. In this work, Holden's assistant, Miss Frances Pearson, rendered valuable aid. She redressed the show-cases, hung pictures in well-balanced positions, and with deft touches to the hangings she enhanced the beauty of the studio remarkably, as only a woman of artistic feeling can.

"All that we need now is a few patrons," observed Holden with a smile, glancing around the

rooms admiringly. "Of course, business is bound to recover, but —"

He was interrupted by the entrance of a neatly attired gentleman.

"Do you make photographic subjects for advertising-illustrations?" he asked. "My name is John Guthrie — you have heard of my product, no doubt — the Guthrie Dollar Candy. Well, it is my intention to advertise it nationally in the magazines. In connection with this publicity I desire to use several snappy illustrations. I want, say, a dozen fine photographs of original subjects, featuring my candy in a highly attractive manner."

"That's not our line, Mr. Guthrie, we specialize in fine portrait-work," replied Holden pleasantly. Then, as his eyes turned toward Miss

Pearson, an inspiration came, and he added, "I believe, however, that I could produce some original material for you. If you would care to send in a box of your candy, I will see what I can do this afternoon."

"I'll have a box brought over within a half-hour," agreed Mr. Guthrie with a sigh of relief. "I've been running around all the morning trying to locate a photographer who can do this class of work. Now, Mr. Holden, use your own ideas, and give me something original and attractive. Judging by the quality of these prints in your cases, you understand your art, so I shall expect fine work."

After the confectioner had departed, Holden turned to his assistant enthusiastically.

"Miss Pearson, if you will do some posing for me with that box of candy, I believe that I can produce some striking advertising-subjects for Mr. Guthrie. In fact, his asking for those illustrations tempts me to consider going into that class of photography exclusively. How would you like to pose for advertising-subjects? With your knowledge of photography, we could devise many unique pictures which would sell readily for publicity-purposes."

"Why, I would be delighted with such work, Mr. Holden," she exclaimed joyously. "To tell the truth, I've desired to pose for motion-pictures, and this would be very much like it."

"Your assistance will be much appreciated," replied Holden gratefully. "You are splendidly adapted to the work, and we shall no doubt accomplish some results worth while. Now, let me explain how I intend to develop business in this new field. There is a greatly increasing demand for photographs which may be utilized for publicity-purposes. For example, I am acquainted with a hatter who demonstrates by photographs in his show-window how the newest headgear appears on notable personages. This is just one instance. Consider the great number of illustrations that are constantly required to demonstrate women's garments, newly invented machines, household articles, buildings, mechanical appliances, etc. Well, it is my intention to specialize in that class of work. By scheming out unique views, full of the so-called 'human interest,' the prints would readily be purchased by advertising-agencies, and by business-men in general."

"Many magazine-covers and art-calendars are made from photographic prints," ventured Miss Pearson, deeply interested. "Could n't you include such work as a branch of your new specialty?"

"Surely; that's a good suggestion," he admitted thoughtfully, "and I thank you for it.

You see, one idea always suggests others. Ah! Here is the box of Guthrie candy. Let's see what we can do with it. We shall require about a dozen different subjects."

While Holden arranged the camera, Miss Pearson casually took a seat near a small writing-table. The box of Guthrie confectionery occupied a careless position on the table, and with a dazzling smile she raised one of the sweetmeats in her right hand.

"That's it!" exclaimed the photographer, with rapt attention. "It could n't be better; by all means hold that smile! Good! I have it. We'll entitle this one 'Her Favorite Sweets.' Now, try another pose of that character."

In addition to being blessed with good looks, Miss Pearson dressed with simplicity and refinement, and was graceful in every movement. With this combination, it was not surprising that within an hour she had posed for a dozen excellent subjects, all featuring the Guthrie Dollar Candy in a tempting way. Holden complimented her highly on her aptitude as an "artist's model."

"We shall make a great success of this" he predicted optimistically. "Now, I noticed that you brought with you this morning a large bouquet of Jack roses. With these flowers I know you could pose for several splendid views. My idea is to have these subjects printed on dull-finish paper, size about 8 x 10 inches, water-colored, and mounted on large mats. To give some idea of what I have in mind, I will suggest a few titles of the proposed subjects: 'The Flower-Girl,' 'The Flowers He Sent,' 'A Treasured Gift,' etc. I believe I would have no difficulty in selling the finished prints to calendar-makers, certain magazines, and to florists for augmenting their window-displays."

"The idea ought to appeal to some progressive florist, I should say," agreed his assistant. "I think I understand just what you want," and taking the roses she enacted one by one the scenes which Holden had suggested.

"You've worked hard to-day, and I appreciate it," said Holden, kindly, after the series of flower-pictures was completed. "Perhaps tomorrow we'll try out a few additional subjects."

While riding homeward on the train that evening Holden was in a pleasant frame of mind as he thought of the wonderful possibilities of his new venture. As the train neared his station he noticed for the hundredth time a fine country residence with a "For Sale" sign upon it. Although the house was vacant, the grounds were well-kept, and the entire place presented an attractive appearance.

"Seems strange that James can't sell that beautiful home," mused Holden, as he alighted





MEADOW-BROOK

W. H. MANAHAN, JR.

NEW ENGLAND PHOTOGRAPHIC SALON, 1915

from the train. "It's been up for sale for the last six months. I believe a good photograph would help to find a buyer for it. I'll suggest that to him this evening."

Holden was personally acquainted with Charles James, the owner of the residence, and after dinner the photographer telephoned to him.

"I've got a plan whereby I think you could sell that house on Myrtle Avenue with the aid of a few good photographs," he suggested.

"Let's have it," responded James, keenly interested. "I must find a buyer for it soon, or I'll lose on the proposition."

"Well, here's the idea: I'll take several well-studied views of the house and grounds, and furnish you with several good prints, water-colored, and mounted in an attractive manner. Your real estate dealer, and some of your business friends downtown, will be furnished with the prints to place in their show-windows. Take Thompson's place on Second Street, for instance.

Thousands of persons pass his window each day, and a photograph of your beautiful house would attract a great deal of attention. Of course, a neat card stating the price, location and other information about the home should be attached to each photograph."

"The scheme appeals to me, all right," conceded James thoughtfully, "and I know that Thompson, Williams and several other business friends will gladly display the photographs in their windows for me. Go ahead! Take them tomorrow, if possible. Something must be done to sell that house."

On the following day, Holden, accompanied by Miss Pearson, visited the country mansion, and obtained several exceedingly attractive views. One of the pictures showed Miss Pearson seated gracefully upon the porch steps of the house, reading a book. Another scene pictured her with a tennis-racket in her hand, playing the game on the velvety lawn. Still another showed her

standing carelessly in the front doorway of the mansion.

"It's the 'human interest' that counts for most in scenes like these," explained Holden, as the final exposure was made. "These photographs will reflect life and action, which are very desirable in advertising-subjects."

During the next two days a few orders were received at the studio for portraits, but Holden managed to develop and print all of the advertising-subjects, and fortunately every illustration was remarkably successful.

Holden hurried over to the Guthrie candy establishment with the advertising-subjects immediately after they were finished, for he was anxious to learn how they would impress the manufacturer. That gentleman happened to be in, and he glanced over the neatly-mounted prints with great deliberation before passing judgment. Finally, he uttered these flattering words:

"I consider these to be the finest advertising-subjects I have ever met with. Say, Holden, that model of yours is beautiful! She has adapted herself to the work splendidly. Her posing is natural, and her smile is not forced. I must also compliment you on the excellent finish of these photographs — the detail is unusually sharp and clear. Now, Holden, I believe that I can put you in touch with a large order for commercial photographs. Yesterday, Martin Wilkinson, the furrier, asked me if I knew of an expert photographer who could take about a hundred special views for him, showing his newest line of furs on a living model. I told him about you just starting in on that kind of work, but of course I could n't recommend you at the time. You have demonstrated your ability with this set of pictures, however, so run down and see Mr. Wilkinson at once. I'll indorse your work by telephone."

The photographer thanked him heartily and hastened to the furrier's, where he immediately received the order.

"Mr. Guthrie has told me all about your attractive, graceful model," laughed Wilkinson. "You may bring her here with you and take the photographs next Tuesday. I want these pictures for illustrating a *de luxe* catalog, so you can judge what kind of views are necessary; but I have no doubt that your work will be highly satisfactory."

After telling Miss Pearson of her remarkable success as a "model," and about the large order from Wilkinson, Holden went out that afternoon with a set of the flower-pictures, and to test their selling-qualities he called on a number of men who in his opinion were likely to be interested in such subjects. About four o'clock he returned to the studio jubilant.

"Dame Fortune has smiled upon us, Miss Pearson!" he exclaimed. "Stevens, the florist, purchased three of those 'Flower-Girl' subjects as soon as I exhibited them. Then I called on Barrie, the calendar-manufacturer, and not only did he buy a complete set, but he ordered twenty additional subjects for his latest calendar-line. He says that he will buy all the original views we can make. From now on we shall accept no orders for portrait-work except from regular patrons and personal friends, as we shall have more than enough to do with our new line. And I might add that commercial photography of the class we are producing will command prices many times greater than ordinary portrait-work."

"Well, you deserve success," she answered heartily. "You put your heart into your work, and you don't hesitate to go out and sell it when that seems necessary. Why should n't you succeed?"

On the following morning Holden finished the art-work on the photographs for his friend James, and delivered them on the way home that evening. It subsequently developed that one of these colored photographs, placed in a downtown business-man's window, was the direct means of selling James's \$50,000 mansion, which otherwise might have remained vacant for months before a purchaser came.

The photographs for Wilkinson proved to be another triumph for Miss Pearson as a model. With keen intelligence, easy grace and simplicity of manner she posed for each subject with the result that the fur-goods were demonstrated to the best advantage. When the prints were delivered, the furrier was delighted with them.

"There will be lots of work of this character for you," he assured Holden. "I'm well acquainted in the clothing-trade, and I'm going to tip off several of my friends about the qualifications of your studio. Expert commercial photographers are scarce, Mr. Holden, especially those who can turn out the kind of work you are doing. I believe that there is a very brilliant future in store for you, provided you maintain your present standard of originality and quality. You know, an *idea* — I mean a clever one, of course — will always sell. It's the commonplace thing that's difficult to dispose of in these days."

Holden thanked Wilkinson for this little "sermon," for he realized that there was solid truth in the furrier's remarks. Within a year Holden's unique business had grown so rapidly that it was necessary to engage a helper for the dark-room, and also a young man to attend to some of the outside-work. Holden and Miss Pearson now devote most of their time to the planning and producing of original advertising-subjects. To



give some idea of the versatility of the work recently produced at the Holden studio, mention is made of the following:

House-furnishing series, with Miss Pearson as Mrs. "Newly-wed."

Gas-range series, Miss Pearson demonstrating its various uses.

Several views of a new motor-boat, containing Miss Pearson and Holden.

Series of original studies by Miss Pearson for calendars.

Twelve subjects by Miss Pearson for a well-known magazine.

Several magazine-covers by Miss Pearson.

Twenty views by Holden for a shirt- and collar-manufacturer.

Several views by Miss Pearson and Holden, demonstrating the natural beauties of a new suburban real estate section.

Photographers, if your business is not what it should be, and if you have *ideas*, there is a message in this story for you!

## Extra Rapid Fixing-Baths

C. WELBORNE PIPER



COMPARATIVE measurements were made with small strips of emulsion-coated celluloid film, the time required for the white emulsion-coating to disappear being noted. In the case of a 40-percent hypo-bath, fixing in  $2\frac{3}{4}$  minutes, it was found that addition of  $1\frac{1}{4}$  percent of ammonium chloride reduced the time of fixing to 2 minutes, but further additions of ammonium chloride gradually increased it to  $15\frac{1}{2}$  minutes, the time with 20 percent of ammonium chloride. The accelerating-effect, therefore, with a hypo-bath of this strength is negligible.

With a hypo-bath of 10-percent strength (fixing in  $12\frac{1}{2}$  minutes) addition of 5 percent of ammonium chloride reduced the time of fixing to 3½ minutes. It was found that the best average result as regards time of fixing was obtained with a 20-percent hypo-bath containing from  $2\frac{1}{2}$  to 5 percent of ammonium chloride, in which bath the time of fixing was 2 minutes.

Ammonia is found, in minute proportion, to accelerate the action of a weak hypo-bath, but to retard a strong bath containing over 50 percent of hypo. But if sufficient ammonia be added all hypo-baths are accelerated, although more ammonia than is permissible is necessary for the most enhanced degrees of acceleration. The quickest bath which could be used in practice is one containing 30 percent of hypo with 5 percent of ammonia 0.880.

Fog may be produced upon a plate solely as the result of the fixing-bath. A very strong bath — say 60 percent, used at normal temperatures — not only fixes slowly but fixes imperfectly, leaving a slight deposit on the film, which is not removed by any prolongation of the time of fixing. Other tests have shown that similar fixing-fog is also caused by fixing in actinic light, even when using a fixing-bath of normal strength.

In examining the fixing-effect, as regards speed, of sulphocyanide, the quickest rate is shown by ammonium sulphocyanide, which in the case of a

35-percent solution requires only 15 seconds: It is, however, doubtful whether sulphocyanides are of any practical use owing to their softening-action upon gelatine. In admixture with hypo, ammonium sulphocyanide yields a very quick-acting bath. Taking  $2\frac{1}{2}$  percent of sulphocyanide as the safest proportion to use, the following formula will give the most rapid bath possible: —

Hypo.....	6 ounces
Ammonium sulphocyanide .....	$\frac{1}{2}$ ounce
Water to.....	20 ounces

This bath will fix in just two-thirds the time of 40-percent hypo, which is the most rapid plain hypo-bath that can be used.

Photographers are often advised that fixing is not complete when the visible bromide has disappeared, but they often neglect this advice because no visible difference is observable, at any rate for a long time. The time of disappearance of the bromide is the first stage of fixing that has formed the subject of the experiments, and the determination of the second stage at which fixing is really complete is not easily effected with hypo. Twice the time of the first stage is, however, probably sufficient. With sulphocyanide fixers the second stage can be in a way determined, because incomplete fixing is shown very rapidly by a deposit that forms in the washing-water. Any one who doubts the necessity of prolonging the time of fixing will soon be convinced if he tries a few experiments with ammonium sulphocyanide. Putting a plate into, say, 30-percent sulphocyanide, it will very rapidly clear, but if the moment it is clear it is taken out of the fixer and held under the tap, it will become opaque all over owing to the precipitation of some silver compound. A second dip in the fixer will clear the plate again, but if this dip is not long enough the deposit will reappear in a less dense form when the tap-water is again applied. If fixed long enough the effect will not occur at all.

*British Journal Photographic Almanac.*



*Copyright, 1915, W. H. Blacar*

THE PENOBSCOT

W. H. BLACAR

## Breaking in on Fifth Avenue

ALICE McCLURE



**B**UILDING up a trade on the main artery of civilization means competition with the keenest minds and calls for an effort possibly beyond that commanded by the ordinary trade. The confidence of our customers, which I feel has been the keynote to our success, has been largely due to the experience and ability of my co-worker, George Bassett. We have had our "ups and downs," troubles, anxieties and disappointments; but we have also had the courage and grit to stick and are beginning to reap our reward.

We have in New York City a Professional Women's Photographic Club. Only women are eligible for membership who are personally identified with the financial end of the business. We meet once a month to discuss some vital point of the business—we talk both freely and confidentially. Our idea is to lend a helping hand and promote a more friendly atmosphere. May I be bold enough to say that this is what I find the profession needs? I have never met better people, nor more intelligent colleagues, nor more honest friends than some of the photographers. I entered this profession

thinking it was on the same ethical basis as other professions. In this I have been sorely disappointed; for in many cases I have found a great lack of etiquette. However, I want to cite an exception in our experience which is one of the bright spots and shows, at least, one photographer broad enough to do a prospective competitor a really good turn. When we opened our studio, we naturally needed a display to attract the attention of the public, so Mr. Bassett called upon several of his friends for the loan of a few display-pictures. The one who was under the least obligations of all responded, and responded with a generosity that makes me proud to know there are such members of our craft. This man knew at that time that within two months he would throw open his own doors to the public and not two blocks away from our location. If that gentleman is present in this audience, I wish to offer him a duplicate key to our front door, and with it all that we can extend in good will and courtesy. The standard of ethics which he has set for us, we intend to maintain. May I publicly thank Orrin Champlain?

In other professions there are recognized ethics





MURILLO TULIPS

FANNIE T. CASSIDY

that demand fairness in competition. Let us be honest with our competitors. No matter how necessary the dollar may be, there is a point where common honesty demands competition to stop. I had a customer who calmly said, "Eva had some very fine pictures copied over there on Broadway at a very low price." Being my first experience, I was horrified and impetuously said, "How Dishonest; is it possible that a reputable firm would stoop to such methods?" Eva was her daughter, and for the first time she realized the truth. Going up Broadway signs can be found displayed which are bidding our customers to bring the results of our efforts and skill for them to copy, offering pictures at prices for which neither you nor I could afford to sell them, because they need not employ even commonplace help — and these thieves are called photographers.

There is no profession more vital to mankind than photography. We are writing the history of the world with indelible truth, we are keeping alive the memory of loved ones with more satisfaction than the painter can produce, and I am very sorry to say that we are not receiving from the general public the respect that our profession should demand, because in many cases we do not respect one another.

It would seem to me that there should be a nec-

essary standard of ethics which must be subscribed to in order to join any photographic association, and this should be so firmly upheld and thoroughly understood by the public at large, that membership displayed in your show-case should not only be evidence that you are dealing fairly with others of your craft, but the public would immediately recognize it as a guaranty — just as the word *Hoflieferant* in Germany, or *Purveyor* to the Court in England, guarantees to you the goods in that shop-window. You know that these firms have a special license from the supreme power, and are obliged to live up to their reputations. It is our fault that the words, "Member of the National Photographic Association," in gold script in our display-windows do not carry the same convincing argument and assurance to the public.

I entered this business in all seriousness; but the humorous side has not escaped me. Exceptional opportunities have been offered us from the manufacturing of daguerreotype plates, promoting a sure cure for rheumatism, to the financing and manufacturing of a water-exploding torpedo that would destroy all our enemies; but I am still busy trying to sell good photographs to an appreciative public. — *An address at the Convention of the Photographers' Association of New England.*

# Black-and-White Prints from Autochromes

C. FINGERHUT

ALL the processes for reproducing prints in colors from autochrome plates that have been placed on the market — sometimes with a great flourish of trumpets — have failed to make good, as the results obtained have been far from satisfying even the most modest requirements that such a process must be expected to fulfil. Even with the bleaching-out process, the only one so far to come near success, satisfactory results are difficult to obtain. The best yet produced, the Utocolor paper, indeed gives colored prints; but that they are correct copies of the originals cannot be claimed. Brilliant colors cannot be had with it; then pure white is lacking in the color-scale, which is only natural, since all the colors bleach out to a dirty, yellowish white. Even full shadows are unattainable, for the color of the paper is a dark gray.

During the past few years, copies of autochromes have frequently appeared in photographic and other periodicals, which, as regards the reproduction of the colors, must be considered as quite successful. Even the sharpness of the prints leaves nothing to be desired. Simple consideration leads to the thought of copying autochromes without using a photographic camera, on the principle of the three-color process, by simple copying in a printing-frame and, as far as possible, by artificial light. In this way one is independent of the constant changing of intensity and color of daylight, and the proper time of exposure can be determined once for all.

The question then arose, whether the grain of the autochrome screen might not in the printing have a noticeable injurious effect. I therefore first tried to make a black-and-white copy by the use of a suitable color-filter. The first attempt with a weak yellow filter was satisfactory, and even with an orange filter good results were obtained. I then tried a green, and finally a combination yellow-green filter. The results with the latter were so satisfactory that I can unreservedly recommend the single-color copying of autochromes. How often one would like to make a print on paper in order to be able to give some

friend a memento of an interesting excursion! But unfortunately one has only the one autochrome. This difficulty can now be overcome, and that by the simplest means.

The grain of the filter has absolutely no unpleasant effect; on the contrary, the print gains more of a gravure or gum-print character.

To make the yellow-green filter, take two common, not orthochromatic, dryplates that are free of defects, and fix them fully in the darkroom; wash thoroughly, and immerse, while wet, one in each of the following baths for four minutes:

## I

Höchst's filter-green . . . 0.5 gram (8 grains)  
Water . . . . . 100 ccm. (3½ ounces)

## II

Höchst's filter-yellow . . . 1 gram (15 grains)  
Water . . . . . 100 ccm. (3½ ounces)

The plates are then rinsed for a minute in water and dried. The two plates (one green and one yellow) are now laid together face to face and the edges bound with gummed paper. This filter is placed in the printing-frame, and upon it the autochrome without its protecting glass; then an orthochromatic non-halation plate is laid on and the exposure is made.

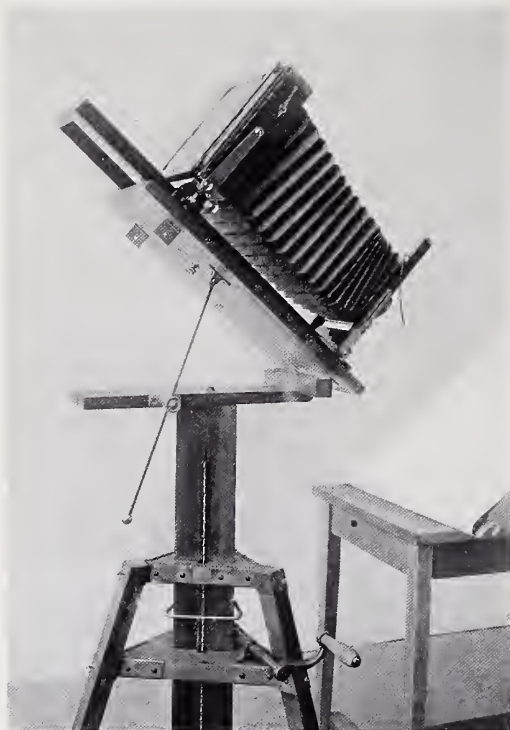
As a source of light I use a 100-N. K. half-watt lamp. The plate used, and proved suitable for the above filter, was Hauff's orthochromatic non-halation plate. In these circumstances the time of exposure was about six seconds, at a distance of four and a half to six and a half feet directly under the lamp. For the purpose of preventing false light from reaching the plate, it should be covered in the frame with a piece of black cloth or paper. Of course, the yellow-green filter may be placed outside the frame in case the springs do not allow room for four thicknesses of plate.

As developers, hydroquinone, metoquinone or metol-adurol are equally good. The method indicated gives brilliant negatives without any disagreeable appearance of the filter-grain.

*Photographische Rundschau.*

IN CHARACTER, IN MANNERS, IN STYLE AND IN ALL THINGS  
THE SUPREME EXCELLENCE IS SIMPLICITY.— *Longfellow.*





CAMERA-STAND WITH CASEMENT-ADJUSTER



MUSLIN CANOPY TO ELIMINATE HIGHLIGHTS

## Photographing for the Photo-Engraver

WILLIAM S. BAILEY

**P**ASSING the store of a New York photographic dealer one afternoon scarcely more than a year ago, my eye was caught by a show-window which seemed to contain every kind of camera under the sun. While for many years at rare intervals I had made snapshots with a little hand-camera, as thousands of others have done and are doing, I did not, that afternoon, need a camera nor had I any thought of buying one. Yet I was unable to get by that glittering display, and into the store I went. When I came out I had a complicated 5 x 7 folding film- and plate-instrument of foreign make, with all that went with it, and had invested more than I once looked forward to as a month's salary. This was how I contracted the infection of cameritis.

For years our publishing-work of textbooks, and later of a technical magazine, had necessitated the use of many photo-engravings for which the originals had been made by photographers in various cities. One day shortly after my pur-

chase, a subject was needed in a hurry, and, setting up the new purchase, a negative was hurriedly made in the light of an office window. Strangely enough it was singularly successful, and then began my real photographic experience. About this same time our need of engravings increased in extent and requirements. Although little more than a photographic beginner, I found that while my negatives and prints were technically inferior to the work of the professionals (for the new camera was now being brought into action with increasing frequency), yet the necessary posing of the subjects, or arrangement of the articles in still-life, with the careful study of the composition on the ground-glass, was enabling us to introduce a new significance into our pictures — a significance we had heretofore been unable to obtain, probably because we were unable to convey to the professional photographer the exact meaning we sought to present pictorially. More than this, we soon found that in picturing a practical method to make its

details readily understood by the printed page alone, the author who is also illustrator comes to create his material to a considerable extent through his actual arrangement of the subjects and his study of the ground-glass. Thus, the actual making of the photographs so materially extended the application of photography to our editorial work that I was soon spending as many hours in work with the camera and in the darkroom as I could spare from my office. We had learned to think pictures in the terms of the ground-glass. By this time the *raison d'être* of the new camera had become manifest, and, as the possibilities of combining editorial work and pictorial embellishment developed, the greater became the fascination of camera and darkroom.

Soon, instead of working with office-window lighting, I found myself under a large skylight in a studio of my own, while to the 5 x 7 hand-camera with its folding tripod had been added a 6½ x 8½ studio-camera with stand, a 4 x 5 Auto-Graflex, with 9 x 12, eleven-inch focus and 7 x 9, eight-inch focus Cooke lenses fitted for use on either camera.

For the studio I designed most of the special equipment required, and as some readers of this magazine may encounter some of the same problems, my experience in devising ways and means is given for what it is worth.

One of the first precepts my associates and I learned in making our own originals for halftone reproduction was "Get it in the print." This is true; first, because a perfect print from a perfect negative (or a properly corrected print from a less satisfactory negative) means a minimum charge, or no charge at all, for retouching the print by the photo-engraver, and second, because delineation by the lens is immeasurably superior to the work of pen and air-brush. In fact, I aim, as far as possible, to eliminate all handwork such as is generally added in commercial work for the purpose of improving the quality of the picture. In an experience of many years I have never seen an example of satisfactory retouching on a photograph of the human hand, while working up the face by the same method is simply hopeless.

In a previous paragraph mention is made of the advantage the author-illustrator has in being able to work with the camera. This advantage is far from ceasing with the making of the exposure. When the purpose of the picture is to convey a definite idea to the student or reader, this pictorial motive may depend on the emphasis upon a detail which can be given only by local development as the developing negative indicates, and which would be largely lost in routine development by one unfamiliar with the exact

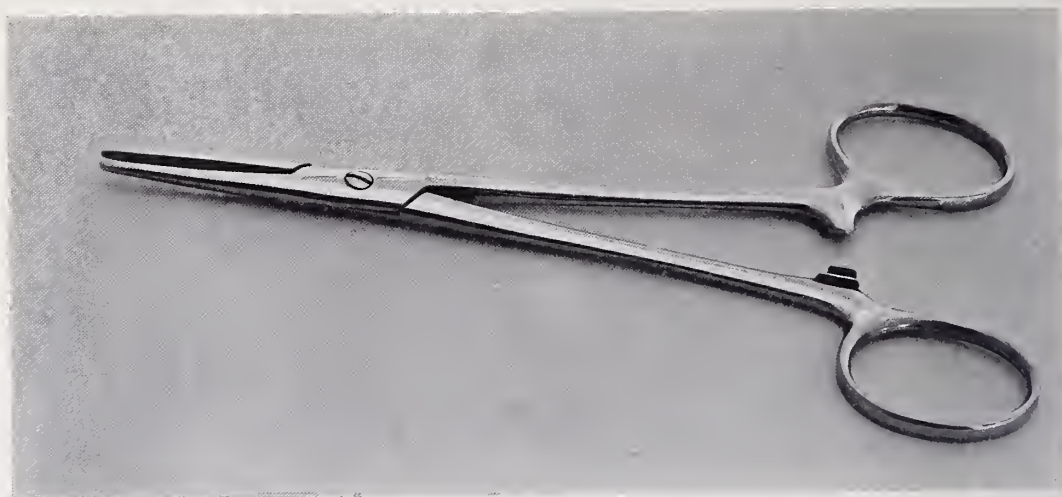


HOLDER FOR WALLPAPER-BACKGROUND



SUPPORT FOR WINDOW-SHADE BACKGROUNDS





EMPTY GELATINE CAPSULES  
NICKEL-PLATED INSTRUMENT UNDER CANOPY  
WILLIAM S. BAILEY



purpose of the picture. The same is increasingly true of the process of printing.

The great essential for producing the wide range of work for which my studio is called upon, is light. Many of our studies are to illustrate the technique of work with the hands, others include one or several persons, while not infrequently the principal actor in the scene will be a youngster or even a wriggling baby. As a periodical requires its illustrations without regard to weather-conditions, we cannot wait for sunlight, and our skylight, therefore, covers a large part of our studio, with windows along one side almost to the floor. Our walls are pure white. With everything opened up we can usually get a full-timed negative, using a Seed 30 or Lumière Sigma, with an exposure of one twenty-fifth second. For ordinary exposures our light is controlled by both white muslin and black curtains, sliding beneath our entire skylight.

The photographer making his own originals for photo-engraving soon learns that he can materially increase or decrease his engraving-costs by his handling of his subjects; and of no one particular is this as true as it is of his backgrounds. Nor, let me add, has any desired result been so difficult to attain in my work as a print with a background of so spotless and even tone that it calls for no treatment from the engraver's air-brush.

In picturing small, still-life studies for general magazine-printing, I invariably use the continuous background, and for this purpose utilize



FOR A BETTER BABIES' CONTEST

rolls of wallpaper. I use the plain paper, smooth but absolutely flat of surface, suspending the roll above and at the rear,

and bringing the paper to the front edge of the stand or table in a long curve. With this arrangement the print will require no background-treatment with the photo-engraver's air-brush. The wallpaper can be torn off and thrown away as it becomes soiled or mused, and the operator thus always has a spotless surface — a necessity in this work.

Procure rolls of the wallpaper in light blue (for a white background) up through grays or browns to dark red, and you can give your subject a background of any tone you desire. We use this method so frequently



A METHOD OF TREATING A BABY'S EYES



that we finally constructed an adjustable rack to hold the roll of paper at any elevation, and which could be placed at any desired distance.

In photographing small objects it was often necessary to tilt the camera at greater angles than the adjustment of the stand permitted, while, occasionally, a vertical position was necessary. After propping up with blocks and fastening with cords, I happened to think of an ordinary casement-window adjuster. One was put on in less than ten minutes, and nothing in our equipment has proved more useful. With it the camera can instantly be fixed firmly at any angle.

Many of our studies include nickel-plated and glass articles, and other objects with highly polished surfaces. Although we rubbed these surfaces with putty, vaseline, soap, glycerine, and about every other form of grease, and chalked and powdered them, the glaring highlights still had to be worked over by the photo-engraver, not always with ideal results, but with certainty of increased costs. All of this was remedied by a most simple device. Around a circle of heavy wire four feet in diameter a breadth of heavy unbleached muslin was suspended, while a circular piece of the same material was fitted in the circle itself. This drum-shaped canopy was then suspended from a ring in the ceiling at the edge of the skylight so that it could be raised and lowered. The study of bright objects is arranged on a stand and background directly below the suspended canopy, and the camera focused. The canopy is then lowered and an exposure of two to three minutes given in its yellow light with a Seed 23 plate and a very small stop. We now get perfect tone-values without highlights, and the prints can be photo-engraved without a touch so far as highlights are concerned.

For photographing larger scenes I find only one background universally satisfactory, and that is made on a frame extending across one end of my studio, the height determined by the widest breadth of sheeting that could be procured. Stretching the muslin taut over the frame, it was painted with flat watercolor of light blue, and the spotty little shadows of both the plastered wall and the loosely hung curtain-background were remedied. For darker tones cloth draperies of various colors are used.

For much of my work I have found the Graflex indispensable. Using a fast plate with a lens that works up to  $F/4.5$  we can get a negative at one-tenth second with almost any light, whereas on bright days we can make this exposure at  $F/8$  or  $F/11$ . In pictures that depend upon arrested motion, it is unnecessary to explain the advantage of being able to work with a reflecting-camera and focal-plane shutter.

While the skylight increases the effects that can be obtained in small commercial or still-life studies, it is in no sense necessary. With the background I have described and a white reflecting-screen, window-lighting answers every requirement for the photography of small objects.

This is particularly true of dietetic and food-subjects which must be photographed where they are cooked. For this purpose, needing a wider background than afforded by the roll of wallpaper, I had a folding portable frame constructed. This frame is hinged in the center of the top and bottom with bolts opposite the hinges to hold the frame rigid when in use. The feet also turn on single bolts, and as the roller-shades lift out of their sockets this background can be quickly folded and easily carried. It has three wide window-shades of different tones which can be drawn down and used as continuous backgrounds or placed back of the table when it is desired to produce a contrasting background.

Window-lighting, a continuous background of plain paper, an orthochromatic plate, and one to three minutes' exposure at  $F/32$  with a 4x or 8x ray-filter, according to the subject, will give a rendering of a food-service that will lead you to wonder what method is used in photographing some of the similar subjects illustrated in the household magazines. In the combination of very dark and white foods in the same view a moving beam of light reflected from a hand-mirror onto the dark portion will materially help in ensuring detail in that part of the negative.

My darkroom-experiences have been of almost as much interest as the studio-work. Beginning with time- and temperature-development in the tank, I now use simple tray-development almost entirely because of the wide range of effects made possible by local development. The tip of the finger or the ball of the thumb has brought detail into many a shadow that otherwise would have shown little or nothing. With a large number of uniform exposures on similar subjects I use the tank with a dilute developer, watching the plates and not depending upon time- and temperature-rules. Much better results are produced with tray-development.

Our prints are all made on D. O. P. I use four well-known makes of paper, always keeping two or three grades of each on hand and ferrotyping all prints. In exacting work it is often necessary to make prints not only on soft or hard, as well as on normal paper, but also on different makes of the same grade of paper before obtaining the exact contrasts desired with the balance of tones from highlight to deepest shadow, which one soon comes to recognize as producing the best-printing halftone plate.

# EDITORIAL

## Does Photography Lie?

DO photographers lie? That is more to the point, although an apology to the craft would seem to be in order for so bold and bald a suggestion. Of course, in one sense, this deceptive tendency is manifested in combination-prints, produced by double-printing — first composed away back in the early days of the wetplate, when clouds were printed into the blank sky of an outdoor-scene, and developed into the bolder method of introducing figures or objects to suit the fancy of the artist. To what extent this process of faking can be carried is evidenced by photographs, or rather enlarged prints, of public buildings or localities in continental Europe, in which the damage done by the enemy's shell-fire has been grossly exaggerated. To be perfectly frank, retouching — in one form or another — is nothing less than a species of systematic deception, but excusable on the ground that the public demands it. The same is true, in a measure, of worked-in backgrounds, particularly the kind which show a beautiful meadow or a row of Lombardy poplars back of a strongly lighted studio-portrait.

But to return to the main theme — the mendacious photographer, the romancer. That the motion-picture photographer is frequently placed in a perilous position when recording an animated scene from a speeding automobile, or taking views of the enemy's position from an aeroplane, cannot be denied; but one rarely hears him boast of the ordeals he has passed through. It is the class of camera-men who stir the imagination by tales of daring that border on the miraculous against whom criticism should be directed. They go about relating their fictitious adventures for the purpose to get free advertising and to justify the high price of some of their photographs. A certain marine-photographer asserts publicly that his most thrilling views of onrushing dreadnaughts are made from a frail launch right in the path of the big craft, when only fifty feet away, with one eye on the finder, and the other on the mighty monster well-nigh on top of him, followed by a wild scramble to get out of death's way! "Often," he alleges, "the warship goes by us so close, after the shutter has been snapped, that we can touch its sides!" "But," he continues, "if a bow should strike our boat, I could cling onto the anchor-chain of the warship; for, you see,

the cutting of the water by the prow would probably hurl me right up in that direction. Yes; I have received as high as one thousand dollars for the right to publish one of my unusual pictures." More than likely this "dare-devil," like his fellows, uses an efficient telephoto-equipment at a safe distance, without risking his precious neck.

Not long ago the Editor was shown a photograph of an eagle's nest situated on a ledge against a high cliff. The young birds, with open beaks and fluttering winglets, appeared frightened, while the mother-bird, with terrifying mien, was ready to dart at the intruder. The camerist declared that he had himself lowered by a rope until opposite the nest and, after the exposure, caused himself to be raised by the same means. On the way up, he was attacked by the infuriated parent-birds, and it was only after a life-and-death struggle, in which he lost his camera, that he was pulled to safety. It is a shame to spoil so good a story; but the truth is that the picture was made in an entirely different way. The camera was suspended by cords from two long poles. A mirror, placed at the proper angle, enabled the photographer to gauge the position of the camera and the moment when to release the shutter — a feat in itself to be sure.

It is common to see photographs of thrilling episodes in which it appears that in the making the photographer endangered his life, but which, if the truth were known, were produced at little or no personal risk.

## Christmas Advertising-Suggestions

THE approaching Christmas season will cause many a photographer to speculate as to what is the best way to induce people to sit for their pictures. He has been urged to adopt this or that method of advertising; but however good the advice given, it must fit the individual case, otherwise it is useless. The photographer should adapt his method to the class of people he desires to reach. If he decides in favor of personal solicitation, the appearance, personality and tact of his agent is of the highest importance. If he prefer the mails, his printed matter should represent the acme of taste and refinement. Publicity through the daily or weekly press should never be frivolous. It should be couched in good English, simple, clear and convincing.



# PHOTO-ERA MONTHLY COMPETITION

*For Advanced Photographers*

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition,  
383 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with *double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer*. Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize-collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards — Public Buildings

Closed August 31, 1915

*First Prize:* Franklin I. Jordan.

*Second Prize:* William S. Davis.

*Third Prize:* Edward C. Day.

*Honorable Mention:* Fred C. Babcock, Mabel Heist Bickle, Kenneth Clark, Francis W. Corvell, J. H. Field, Carl H. Kattelmann, F. W. Kent, Paul P. Kimball, Warren R. Laity, Alexander Murray, C. Howard Schotofor, R. W. Squires, H. P. Webb.

Special commendation is due the following workers for meritorious prints: Vincent Driscoll, T. W. Lindsell, Louis R. Murray, Robert B. Montgomery, H. R. Neeson, Joseph V. Phelan, F. C. Schmelz, W. I. Simelius, Albert F. Snyder, A. J. White.

## Subjects for Competition

"Garden-Scenes." Closes October 31.

"Vacation-Pictures." Closes November 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.

"Subject for PHOTO-ERA Cover." Closes April 30.



Photo-Era Prize-Cup

In deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## Double Intensification

NAMIAS strongly recommends the use of mercuric iodide as an intensifier, and when very dense negatives are required he states that it is better to bleach with mercuric chloride, wash well, redevelop with a developer, and again intensify with a solution of mercuric iodide in excess of potassium iodide. This last solution keeps very much better than one made with sulphite. This double intensification gives very great increase of density and is especially suitable for black and white work.—*Eder's Jahrbuch, 1914.*



THE GOLDEN HUB  
FIRST PRIZE — PUBLIC BUILDINGS  
FRANKLIN I. JORDAN







ENTRANCE-HALL, NEW YORK PUBLIC LIBRARY

WILLIAM S. DAVIS

### Winter Street-Scenes — Photo-Era Competition Closes December 31, 1915

THE camera-owner who is discouraged by the changed conditions and added difficulties of winter-photography, and puts away his equipment until summer smiles again, loses much good sport and many beautiful pictures. The difficulties are not so great as is often imagined, and a very little experience will enable one to overcome them.

In some ways it is easier to make a wise selection of subject in the winter than when the judgment is confused and led astray by the wealth of color in summer-scenery. In winter all the world is a "Study in Black and White," and the worker in monochrome finds it easier to judge of his effects. The successful winter-picture is a study in light and shade; in delicate gradations of tone; a "Harmony in Gray and Silver;" and Nature herself at this season shows few variations from this quiet harmony. The deep green of the evergreens is so nearly black to the eye that it takes about the value it has in the photograph, and the faint purple of

the bare branches against the sky, while it adds to the beauty of this delicate tracery, is nothing to deceive one by giving a false impression of values.

Under these conditions one's entire attention may be given to composition, and here again one is materially aided by the absence of a mass of distracting detail which, without the all-subduing mask of snow, would "clutter up" the foreground. Broad masses and flat tones are possible now which at other times are difficult to attain. Light and shadow, always important, are now of paramount importance, and, the view having been decided upon, the time of day should be chosen with equal care. Perhaps in morning-light the sun would be nearly behind the camera and the foreground a solid unbroken mass of white, the tree-trunks beyond, a flat unbroken gray. The same viewpoint in late afternoon-light might show the foreground broken into pleasing variety by the cast shadows of the trees that now show a line of light along one side, giving roundness and modeling.

In snow-scenes, in fact, the best lighting is apt to be one more or less from the front, the shadows falling



NOTRE DAME CATHEDRAL

EDWARD C. DAY

toward the camera being especially pleasing on the background of snow. In taking subjects with back-lighting, however, care must be taken to give adequate exposure. It is a fallacy to suppose that snow-scenes always require excessively short time. The same old rule holds good here—namely, expose for the shadows. Of course, there is much light reflected from the snow, but even so you will find that tree-trunks with the light behind them look pretty black, and unless you are looking for a plate of “soot and whitewash” quality, a full exposure should be given.

Film-users are safe from halation-troubles except in extreme cases, but plate-users should adopt a double-coated orthochromatic plate for best results, and in either case a light ray-screen—say a three-time depth—will improve matters where the difference between blue sky and white snow is to be brought out. Too deep a screen will make the sky look as though a summer thunder-storm was imminent, and will upset the plane-values.

If it is a city-street that is to be the subject of the study the best time to portray a wintry appearance is

directly after a storm. Then, though the teams are busy carting away the snow, it is still white; for alas, the city-snow soon grows dingy even where it is allowed to remain as it falls. If one is a real devotee of the art, some splendid things may be had by braving the elements and venturing out while the blizzard is still in progress. The snow-coated cabs, with their shivering, wind-blown horses and the drivers huddled under protecting capes, the pedestrians, leaning against the wind and the stalwart newsboys shouting their “papiers” in the teeth of the gale are all good material and furnish the “human interest” so desirable.

When the storm is over and the sun comes out again, the streets are full of picture-material, from end to end. In the slum-districts the children are making the most of the rare sport of snow-balling, or building forts, snowmen, etc. The paterfamilias may be out with a shovel, while the women and girls with shawl-covered heads are most picturesque.

In the market-districts the street-venders soon reappear, and their stands and customers are good material under any conditions, but particularly in winter,





PENNSYLVANIA STATION, NEW YORK

KENNETH CLARK

when both the vendors and their patrons resort to so many pathetic but picturesque expedients to protect themselves from the cold. Then there are the omnipresent street-gamins holding onto tingling cars, or blowing on frosty fingers; in fact, all the street-life is of interest, and subjects may be found at every turn.

The long vistas of the up-town streets, if rightly handled, are also good material. There is often a soft atmospheric quality that adds materially to work done on a frosty morning when the shadows are long and interesting, and it is worth a little effort to procure pictures at that time.

A more than ordinarily difficult aspect to photograph successfully is the fairyland of whiteness that follows a sleet-storm or one in which the snow clings to wires and trees until every little twig is laden with its burden of eiderdown. That is the time for your short exposure, for there are practically no darks in your subject, and the delicate detail in the snow will be lost unless great care be taken both in exposure and development. Of course, if dark houses or other masses of heavy shadow are present this does not apply, but often on such a morning even the trunks of the trees will be whitened with snow or sleet and, unless houses are included, the cast shadows on the snow are the darkest notes in the whole view.

In the country-street the various means of convey-

ance in the winter are an interesting study. There is the trim "cutter," with its pair of horses and jingling bells, perhaps the American equivalent of the Russian drosky, with driver in fur cape and cap, and from these all stages down to the antiquated "pung." The old-fashioned, high-backed, low-cut sleighs are most picturesque, and a village-street on the day of the "Town meetin'" will furnish many quaint and interesting examples of the conveyance of bygone days.

In the logging-season many interesting street-scenes may be observed in the timber-country, when the big loads of logs, often drawn by the picturesque oxen or perhaps by two or three pairs of heavy horses, follow one another down the street.

The person with an observant eye will find abundant picture-material whether in city or country-town, in winter as well as in summer. It is likely to be true that one becomes so accustomed to the things one sees every day that one fails to observe the picturesque element in one's surroundings. The city-dweller thinks if he were in the country he could find plenty of material, and the country-person feels sure the city is the place to find all that heart could desire by way of the picturesque. To train eye and brain to find the pictorial in the familiar and commonplace should be our ambition.

KATHERINE BINGHAM.

# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department

Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Hastening Development with Neutral Salts

LÜPPO-CRAMER states, in a recent number of *Photographische Korrespondenz*, that by the addition of a number of indifferent neutral salts, such as sulphates, nitrates, oxalates, etc., the development of halogen silver-gelatine is considerably hastened. As an example the following hydroquinone developer is given:

Hydroquinone .....	20 grams	} 5 ccm.
Water .....	500 ccm.	
Sodium sulphite, dry .....	50 grams	
Potassium carbonate .....	75 grams	
Potassium bromide .....	2 grams	
Salt peter solution, 10% .....	100 ccm.	

This developer, without the salt peter solution, diluted with only 100 ccm. of water, gave in six minutes but scant traces of the image, while with the salt peter the whole came out quite strongly with full tone-scale in the same time. With silver bromide without emulsion-medium, the sulphate, nitrate and oxalate showed a notable hastening of reduction. With glycin and metol the reduction was not so markedly accelerated, and seemed to require a larger quantity of potassium bromide. With pyrogallol the silver bromide without medium also showed hastening with the salts named, but with bromo-silver-gelatine no such effect was noticeable. With potassium nitrate, however, acceleration was obtained when a quite large addition of bromide salt was used and the alkalinity reduced at the same time, the pyro developer being, therefore, enormously retarded. In previous work Lüpko-Cramer had also studied pyrocatechin, and found that potassium nitrate hastened development, while potassium oxalate retarded it.

## Photographic Reproduction in Colors

IN March, 1914, mention was made under this heading of a method of making photographic reproductions devised by Mr. John Lewisohn of New York City. Mr. Lewisohn has now taken out another patent which is, so to speak, a sequel of the first. The specification describes it as follows:

"The method consists in obtaining three negatives of an object to be reproduced on suitable orthochromatic silver-emulsion photographic plates with the aid of three respective color-screens by the well-known three-color photographic process, so that one of the three negatives will produce a positive print with the yellow color-value; another, with the red color-value; and the third, with a blue color-value. The blue-print is made first from the yellow color-value negative. The entire blue part of this blue-print is washed with a yellow wash, such as aurantia, which is then dried and afterward immersed in a weak solution of silver nitrate sufficiently strong to dissolve the blue and leave the

yellow image of the yellow color-value negative. The so-formed print is then washed, to eliminate the silver nitrate, and dried. The side of the print bearing the image is then coated with a blue-print sensitizing-medium. The sensitizing of the print may be done to advantage before the print is quite dry, to get an even coating. The resensitized print is impressed with an image through the red color-value negative, which negative is adjusted on the print so that the image formed by the red color-value negative registers with the image under the coating formed by the yellow color-value. The blue-print so formed is washed with a red color-wash, such as red eosin, and then dried and treated with a bath of silver nitrate, strong enough to dissolve the blue, leaving the red image on the yellow image previously formed. After washing and drying the so-formed print, the side having the images is re-coated with a blue-print sensitizing-medium, the same as previously stated, dried and exposed to produce an image through the negative having a blue color-value, which image will properly register with the images formed by the previous negatives. The print so formed will have the blue color, the red color and the yellow color placed successively in the order described; and in combination will produce a picture of substantially natural color, i. e., the image on the print of the object will be substantially in its natural colors.

"It is self-evident that the process can be used with only two, or with more than three colors if desired. The principle of the process consists in forming a series of superposing blue images, of which the preceding blue color of the image has been substituted by another color before the succeeding blue image has been formed."

## The Effect of Moisture and Changes of Temperature on Dryplates

THE question of the sensitiveness of dryplates to the action of moisture and changes of temperature has recently been revived in Germany. As many of the interesting data given may be new to amateurs, we repeat them in an abbreviated form.

A moist emulsion-coating shows less sensitiveness to light than a dry one, though as to the degree of difference there is a variety of opinions. It may be remarked that in this the nature of the emulsion plays an important part. The exposure of a wet bromo-silver-gelatine plate rarely happens, but cases may be met with, as, for instance, where the plate has been bathed in a coloring-solution to make it color-sensitive, and it has to be exposed while moist, either by reason of hurry or because circumstances have prevented it from drying quickly enough. When exposing such a wetplate, care should be taken that no running or dripping of the liquid shall mar the uniformity of the picture. It should also be noted that on exposing a wet, swollen gela-





ON CASCO BAY

R. W. STEVENS

tine-coating the sharpness is apt to suffer; but this slight trouble is generally negligible.

Noticeable effects of temperature occur only when exposure is made where the thermometer registers  $116^{\circ}$  F., or when it is below freezing. The relative sensitiveness of a plate of medium speed would be, counting the freezing-point as 100, as follows:

At $23^{\circ}$ F.,	about	85
" $14^{\circ}$ "	"	65
" $5^{\circ}$ "	"	55
" $4^{\circ}$ "	"	45

Little attention is paid to these differences in practice. In taking views in the open air, plates of the highest sensitiveness are generally used, the emulsions of which are little affected by the temperature.

### Controlling the Contrast of P. O. P. Prints

WHILE gaslight papers provide an easy means to obtain the best possible print from any negative, provided a black or sepia tone is desired, P. O. P. yields a delightful purple-brown to be had in no process other

than carbon. It should be remembered in this connection that it is possible to vary the contrast in a P. O. P. print by controlling the printing-light. Rapid printing in direct sunlight will yield the least contrast and is preferable for vigorous negatives; diffused north light, or the expedient of placing one or more sheets of white tissue-paper over the printing-frame, even though exposed to sunlight, increases the contrast somewhat as well as the printing-time; whereas a sheet of green glass laid over the printing-frame increases the contrast considerably. Glass having a decided yellow tendency should be avoided because it would prolong exposure to an impractical length of time.

### Some of Us Are Born Unlucky

"HAVE you any references?" asked the lady of the house with evident suspicion.

"Yes, ma'am, a lot of 'em."

"Why did n't you bring them with you?"

"Well, you see, they're just like my photographs, ma'am. None of 'em does me justice."

# THE ROUND ROBIN GUILD MONTHLY COMPETITION

## For Beginners Only

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

### Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

### Prizes

*First Prize:* Value \$5.00; *Second Prize,* Value \$2.50; *Third Prize:* Value \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "**General**"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

### Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. Criticism on request.*

4. *Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what contest it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer. Large packages may be sent by express very cheaply and with indemnity against loss.

### Awards — Beginners' Contest

Closed August 31, 1915

*First Prize:* R. W. Stevens.

*Second Prize:* Charles F. Langer.

*Third Prize:* William J. Wilson.

*Honorable Mention:* Edna Blackwood, Pierre S. Boisse, A. J. Deering, Theodore Erdos, Lewis L. Hertzberg, M. de Leon Imus, Arthur C. Link, Robert P. Nute, Louise A. Patzke, Myra D. Scales, W. Stelcik, Dick Treweeke, Fred Widder, Kathryn F. Wotkins.

Special commendation is due the following workers for meritorious prints: S. L. Burgher, R. Irwin Johannesen, Louis R. Murray, Mrs. H. G. Reed, Kenneth D. Smith, S. A. Weakley.

### Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed to the Guild Editor for criticism will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links. To compete with others puts any one on his mettle to achieve the best that is in him, and if, in competing, he will study carefully the characteristics of prize-winning prints every month, and use the Guild correspondence privilege freely, he cannot help but progress.

TASTE is, perhaps, the soul.— *Auguste Luchet.*



# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

## Platinum Prints on Cloth

THE making of prints upon fabrics is not a new idea, but the usual method has been by the use of ferro-prussiate, which produces a print in vivid blues. For most subjects a print in black and white is much to be preferred, and the platinum process gives this result with absolute permanence. The process as described by Mr. Jarman is very simple, although the list of solutions looks rather formidable.

A

Potassium chloroplatinite ..... 15 grains  
Water .....  $\frac{1}{2}$  ounce

B

Ferric oxalate ..... 140 grains  
Oxalic acid ..... 5 grains  
Water ..... 2 ounces

C

Lead nitrate (c. p.) ..... 120 grains  
Water ..... 2 ounces  
This must be dissolved by boiling.

D

Oxalic acid ..... 120 grains  
Water ..... 2 ounces

To sensitize, have the cloth smoothly ironed, and lay it upon a clean glass plate; with a camel-hair brush (rubber-set) apply the sensitizing-solution composed of  $\frac{1}{2}$  ounce of B, 2 drams of A, 5 drops of C and 5 drops of D, to which 4 drops of a gum arabic solution should be added. Stir this with a glass rod and apply only where needed, whether oval or square. Sensitize by orange light and dry at once by artificial heat. Printing should be done at once when dry, the smooth fabric being exposed under the negative as for a paper print. Direct sunlight is best for negatives of normal contrast, and printing should be rather deep. It would be advisable to get the time by printing one or two small pieces and developing, as the cloth is apt to move a bit on the negative when examined, causing blur.

Develop at once in the following:

Neutral potassium oxalate .....  $3\frac{1}{2}$  ounces  
Boiling water ..... 20 ounces  
Sodium phosphate .....  $\frac{1}{2}$  ounce  
Use at a temperature of 65 to 70 degrees.

When development is complete, clear in a bath of 1 ounce of hydrochloric acid to 60 ounces of water. If only a corner of the fabric has been printed, this corner may be dipped in the acid bath a few times, then in a fresh bath and again in a third. It may then be washed for a few minutes in clear water and placed in a bath of sodium carbonate,  $\frac{1}{2}$  ounce to 16 ounces of water, which neutralizes any trace of acid. Another brief wash in water completes the process, after which the image is proof against ordinary laundry-processes.

The uses to which photographs on cloth may be put are legion. Flowers are useful as decorations for book- or magazine-covers, or for various small articles. If a girl has a flower name, such as Rose, Violet, or Lillie, she might use the flower as a means to mark her belongings, such as handkerchiefs, scarfs, etc. The landscape might be used in pillow-tops and pin-cushions, and one might even make use of portraits for some purposes. Long ferns lend themselves gracefully to decorative schemes, and the pressed ones can be used to print from directly without the need of a negative.

## Keeping a Notebook-Record

EXPERIENCE is the best teacher, they say; but sometimes, because we are heedless pupils, we fail to learn the lessons it would teach. One good way to make the most of both our successes and failures is to keep a faithful record of all details of exposures made.

If one carries a small notebook on all camera-trips, it is easy to form the habit of making a note at the time of taking a picture regarding the time of year, time of day, light-conditions, lens, plate, stop used and exposure given. Space should be left for further details on completion of the negative.

If films are used, the spools should be numbered on removal from the camera and the record numbered to correspond. If plates are used, the holders should be numbered so that each exposure can be identified. With the autographic back now on the market, a brief note of exposure, etc., can be made on the film itself, but this does not take the place of the notebook, for it cannot be sufficiently full.

When the plates are developed, add to the record of exposure the developer used, and whether the plate seemed over- or underexposed, or was well timed. If it is found necessary to intensify or reduce the negative, note that and the formula used, so that if deterioration takes place you will know where to place the blame.

When it comes to printing, record the grade of paper that seems best suited to bring out the good points in the negative. If any "dodging" is necessary, note just what and how much. If clouds are to be printed in, give the number of the cloud-negative and the part used, with time of exposure for both foreground and clouds.

Any other items of interest or value regarding the negative should be added, as in what contests it was entered, what prizes it won, in what magazines it was reproduced, and in fact anything connected with the subject to which reference may be made. The envelope in which the negative is filed should bear a number which is also placed at the head of its page in the notebook, thus making it easy to refer to its history.

One possessed of such a record has his experience where it can continue to instruct. If a negative turns



THE PATH TO THE VILLAGE

CHARLES F. LANGER

out exceptionally well, he can look back and see just how the results were obtained. If a plate is a failure, he can see where he went wrong, and under similar conditions he will avoid the former error. This record will also be a help to him and to others when a print is to be entered in a contest, or, when for any reason, "data" are called for. He will not be obliged to rack his brain to remember just what was done, and finally guess at it, but can give exact information for the benefit of his fellow craftsmen.

### Suggestions for Photographing from Airships

As photographs from air-craft are generally taken from a great height, it should be noted that the time of exposure must be shortened, as a rule, about one-third. In most cases there will be overexposure, says *Photographische Korrespondenz*. This can generally be remedied by suitable development, so it does not always spoil the plate; but in taking military pictures, which must be finished as quickly as possible, the disadvantage is considerable, since the after-treatment of the plate causes loss of time. A shorter exposure, as a rule, shows more practicable results. The leeway between a usable underexposure and a correct exposure can be found quickly; moreover, errors of exposure can be equalized by development in two trays (separating the developing-agent and alkali) and a good final result obtained. As a rule, views taken from airships lack contrast; therefore contrasty but good-working plates are recommended. The usual soft-working and otherwise useful kind are less suitable for airship-views. Without a yellow screen views should be attempted only on very clear days. For views taken without a yellow screen orthochromatic non-halation plates should be used. For pictures taken in twilight, on the other hand, the most sensitive orthochromatic plates are recommended. For printing, gaslight paper is the most suitable. A requirement of the paper is a fine grain and a glossy surface. The arrangement of the darkroom should be as simple as possible with everything ready to the hand. Material should be kept on

hand for rapid drying of the negatives. The darkroom should be transportable, and for the sake of convenience in transportation it should be easily taken apart and set up again. It should be so arranged that development can be done either during great heat or extreme cold. Plates and papers intended to be transported by sea should be so packed as to protect them from rapid deterioration. The taking of the pictures themselves requires some skill in handling the apparatus, as in airships there is naturally a strong vibration and rapid motion. Flying-machine views require clearness of the object, visibility and easy location. The recently introduced special camera for aeronauts fulfils the requirements very completely.

### The Valuation of Photographs

If Rembrandt had been a modern and his "Bathsheba" had been painted yesterday, he would probably have considered himself fortunate to obtain £40 (about \$200) for it, or one-thousandth part of the price by Messrs. Duveen, for good paintings are often undervalued when they are new, even by the artist himself. Photographers, however, seem inclined to make mistakes of the opposite kind. A short time ago we saw a well-known photograph by one of the leading pictorialists come under the hammer at an auction, and the whole thing, frame and all, went for two shillings sixpence! This was probably about one-twentieth of the price that the author put upon his production when he first showed it in an exhibition, and while we are not contending that half-a-crown was by any means a fair valuation, the contrast between this sale and that of the Rembrandt should have a cooling effect upon those ardent photographic "pictorialists" who consider their work to be in every way on an equality with that of painters. We cannot help thinking that if photographers were a little more modest in their estimates of the value of their own productions, the number of sales at exhibitions would greatly increase, which would be of material advantage to both the exhibitors and the exhibition-authorities. *British Journal of Photography*.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

**W. C. W.—A good way to remove the coating from old negatives** is to employ a stripping-solution such as is used for transferring an image from one glass plate to another or to another sort of support entirely. First prepare the following stock-solution:

Methylated spirit .....	12 ounces
Water .....	$\frac{1}{2}$ ounce
Glycerine .....	$\frac{1}{2}$ ounce

As needed for use add six to thirty drops of commercial hydrofluoric acid to each ounce of stock-solution. The coating will loosen and peel off in a short time after immersion in this. Cutting through the coating with a knife, about one-eighth of an inch from the edge of the glass all the way around, offers a ready entrance for the solution and facilitates its action.

**To clean a lens**, first dust it with a camel-hair brush or tuft of absorbent cotton, then wipe it carefully with a very soft silk or linen handkerchief or soft wash-leather. If the surface still appears cloudy, a single drop of pure grain alcohol should be put on each of the surfaces, which should then be wiped carefully until quite dry. The spirit must not be allowed to run between the glass and its brass cell, and care must be taken not to remove the dead black coating from the lens-cell. The edges in contact with the cell are best cleaned with the pointed end of a bit of soft wood over which the rag is stretched.

It is easy to damage a lens by improper cleaning, optical glass being generally much softer than other kinds. Apart from actual scratches the surface is liable to become dulled, a condition that affects the rapidity. The necessity for frequent cleaning is obviated by fitting all lenses with caps to both front and back combinations.

**F. N. H.—The emergency eye-glasses** which you mention were described in PHOTO-ERA for February, 1914, page 96. The Editor, Mr. French, had completely broken his bifocals by letting them fall on the hardwood floor. He was entirely alone at the time and, without glasses, was unable to read fine printed matter, his trouble being astigmatism. Desiring to consult the telephone-book, and remembering that the smaller the diaphragm in a lens the more marginal rays are excluded, and, consequently, the sharper the image, he conceived a device which would act in a similar manner. Taking a strip of dark, stiff paper about 4 x 8 inches, he made two small, perfectly round holes — each about  $\frac{1}{32}$  of an inch in diameter, and  $2\frac{1}{2}$  inches apart — with a sharply pointed lead-pencil. Holding this improvised eye-glass close to his eyes, and peering through the twin pair of tiny orifices, the Editor was able to read perfectly even the smallest type. For further information on this interesting topic, you are referred to the above-mentioned article.

**H. W. C.—**Not knowing anything of your journey — its route and destination or your mode of travel — it is difficult to make other than more or less stereotyped suggestions regarding ways in which to make your camera pay your expenses.

First of all, however, I would suggest that you try to make some definite connections before starting. Certain railroads, hotels, steamboat-companies and the like might commission you to make views of value to them for advertising-purposes. Then, too, there is always a market for striking photographs, big and bold in composition, and containing human life, for magazine-covers. Of course it goes without saying that the figures included must show no consciousness of the camera and be spontaneous in pose, costume and expression. Travel-articles which get a new "slant" on popular themes, and which are well illustrated, will prove of value if you write brightly and well. The big postcard-companies are constantly bringing out new and pleasing views of local interest. Look at the post-cards in the towns you visit, and if you have a better view of any particular subject, send a print to the publisher, whose name you will find on the card. If you contemplate spending any time in out-of-the-way places where photographers are few, you may be able to do something with home-portraiture.

**M. C. J., JR.—The reason for your flat negatives made with a 3A Graflex fitted with a focal-plane shutter** is undoubtedly underexposure. The working-efficiency of such a shutter is fully three times that of the average between-the-lens shutter for which most exposure-tables are intended. If you will be guided, for instance, by the PHOTO-ERA Exposure-Guide, and divide the exposure-times given by three, you will probably succeed. Should you desire an actinometer which actually measures the light-value with sensitive paper, the Wynne meter, costing \$2.50, is excellent; also the Watkins Bee and Heyde meters.



ELECTRA ROSE

PIERRE S. BOISSE

HONORABLE MENTION — BEGINNERS' CONTEST

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

B. K.—Your picture of a young girl leaning forward from behind a picket-gate is very pleasing, except that the gate is so prominent as to detract from the figure of the girl behind it. Even had the model stood in front of the gate, the latter would have been equally conspicuous. Such accessories are not desirable, and the composition is inartistic.

F. N. H.—Your clouds printed in are satisfactory; but the water which should reflect them is bare. This is not according to nature, nor is it good art. You must study your subject carefully in this respect, and understand where, in the reflected sky, the clouds should appear; also in what degree of sharpness. The latter depends upon the condition of the water—its clearness and the degree of roughness of the surface.

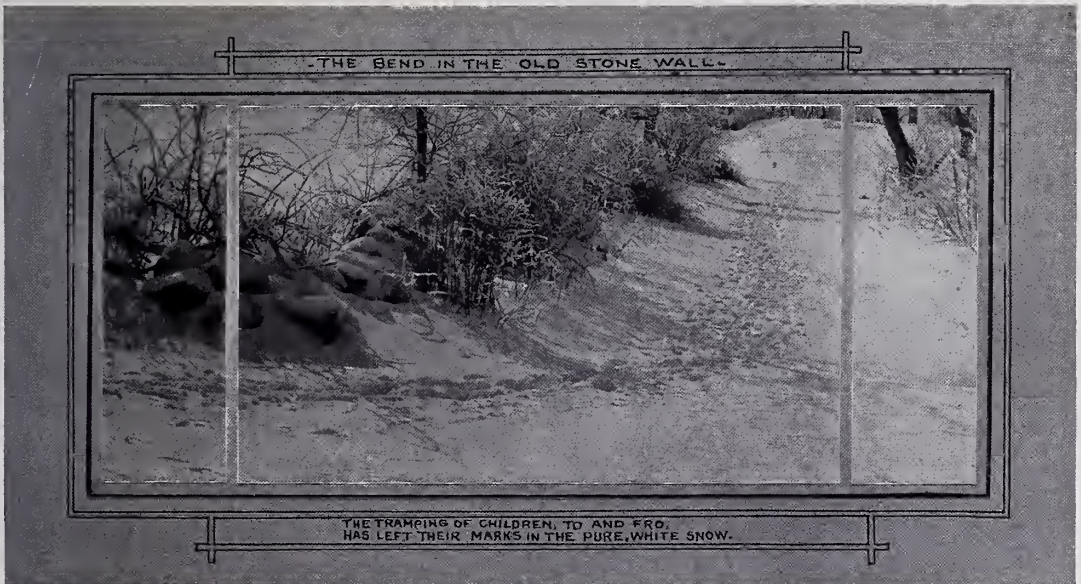
O. E. R.—In the small landscape you have sent you have an attractive subject with good sunlight-effect; a subject which would benefit by enlargement and prove more imposing in a competition if carried up to at least 5 x 7 size. By enlargement on a matte paper you would soften the outlines in a more pleasing way than by interposing a glass between film and paper as you have done. So great a thickness causes too great diffusion for the size of the print; a sheet of transparent celluloid would have been better for contact-printing. However, diffusion is hardly desirable in small subjects, and we much prefer the "straight" print.

J. R.—The greatest fault is the inartistic white masses, due to bad lighting; also the feet of both boys have been "cut off." The idea, itself, is a good one, but carried out poorly. Had the boys been dressed in suits of subdued colors, and not in white, light blue, or anything that will photograph white, likewise stockings and shoes, the effect would be much better. Of course, out in the open—on the beach where there is light-colored sand and where everything is almost glaring white, these light-colored accessories would be harmonious. The annoying white objects in the background are also inartistic.

The compliment implied by the youthful models reading PHOTO-ERA is appreciated; nevertheless, the lighting is not satisfactory, and one of the boys moved. Besides, they should not be looking into the camera, but rather into the book. The white window-curtain, without any gradations, is also inartistic.

R. J.—Please remember that genre-pictures, particularly in the house, are among the most difficult things in photography. The subject should be posed carefully and artistically, lighted properly, and a camera with a quick-acting lens be used. The best source of illumination in photography of this kind is the flashlight; but it, too, requires judgment and special care on account of the danger connected with its use.

E. R.—The reason why you fail to obtain clouds in your negatives after using orthochromatic film and a color-screen is probably due to overdevelopment, which renders the entire sky-area so dense that the cloud-forms are obliterated, or, if visible to the eye, are so dense that they will not print out before the foreground is too dark. It is essential to give ample exposure for the deepest shadows in which detail is wanted and then to develop for the most important highlights rather than the shadows—in other words, not to carry development too far. A rather thin, detailful negative is the object. Perhaps a more dilute developer will prove helpful, or one containing more metol and less hydroquinone, weak Rodinal.



"THE BEND IN THE OLD STONE WALL"

THIRD PRIZE — BEGINNERS' CONTEST

WILLIAM J. WILSON



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

\*These figures must be increased up to five times if the light is inclined to be yellow or red.

†Latitude 60° N. multiply by 3;  
55° × 2; 52° × 2; 30° ×  $\frac{3}{4}$ .

‡Latitude 60° N. multiply by 2;  
55° × 2; 52° ×  $1\frac{1}{2}$ ; 30° ×  $\frac{3}{4}$ .

§Latitude 60° N. multiply by  $1\frac{1}{4}$ ;  
55° × 1; 52° × 1; 30° ×  $\frac{1}{2}$ .

||Latitude 60° N. multiply by  $1\frac{1}{4}$ ;  
55° × 1; 52° × 1; 30° ×  $\frac{1}{2}$ .

HOUR	JAN., NOV., DEC. †					FEB., OCT. ‡					MAR., APR., AUG., SEPT. §					MAY, JUNE, JULY				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
11 A.M. to 1 P.M.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
10-11 A.M. and 1-2 P.M.	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
9-10 A.M. and 2-3 P.M.	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$1^*$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$
8-9 A.M. and 3-4 P.M.						$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{2}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{2}{3}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
7-8 A.M. and 4-5 P.M.											$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
6-7 A.M. and 5-7 P.M.											$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{2}{3}$	$1^*$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
5-6 A.M. and 6-7 P.M.																$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	$1\frac{1}{2}^*$

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks, ravines, to glades and under the trees. Wood- interiors not open to the sky. 48 Average indoor-portraits in a well-lighted room, light surroundings.**

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number  
in the third column

## Example

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.

U. S. 1	F/4	× 1/4
U. S. 2	F/5.6	× 1/2
U. S. 2.4	F/6.3	× 5/8
U. S. 3	F/7	× 3/4
U. S. 8	F/11	× 2
U. S. 16	F/16	× 4
U. S. 32	F/22	× 8
U. S. 64	F/32	× 16

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 P.M., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply  $1/16 \times 4 = 1/4$ . Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class.  $1/16 \times 1/2 = 1/32$ . Hence, the exposure will be 1/32 second.

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.  
Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 128, Wy. 250, Wa.  
Anso Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.  
Anso Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid

Class 1, P. E. 111, Wy. 180, Wa.  
American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter  
Imperial Ortho. Special Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film and Blue Label  
Marion P. S.  
Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.  
Cramer Banner X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.  
Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 84, Wy. 160, Wa.  
Cramer Anchor

Lumière Ortho. A  
Lumière Ortho. B

Class 2, P. E. 78, Wy. 120, Wa.  
Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.  
Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Hammer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.  
Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.  
Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Halftone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.  
Lumière Autochrome



# OUR ILLUSTRATIONS

WILFRED A. FRENCH

THE success of William Noetzel as a photographer of children has been mentioned several times in this department. His little sitters are always serene, chubby and altogether adorable. Their portraits are wonderfully plastic, correct in drawing and atmospheric in quality. This is due largely to the artist's intelligent use of a lens specially adapted to portraiture. The student will appreciate the delightful individuality of Mr. Noetzel's child-portraits, of which an excellent example embellishes the front cover and page 223. Data: 8 x 10 Portrait-Camera; 19-inch 1c Tessar lens; 8 x 10 Standard Polychrome, pyro; 8 x 10 E. B. Platinum print.

The frontispiece is devoted deferentially to the man whom the world will delight to honor the eighteenth of November. The view chosen by the photographer shows the beautiful monument at its best, and, as desired most particularly in this instance, the picture is technically excellent. No data.

Portrait of Daguerre, page 219, was made by Charles Meade when he visited the "First Photographer," in 1848, at Petit-Brie-sur-Marne. The original daguerreotype is preserved in the Smithsonian Institution, Washington, D. C.

The daguerreotype of an eminent American jurist, Joseph H. Choate, page 222, was made in 1852, together with the other members of the graduating class of that year.

In grace of pose and beauty of expression, Mr. Champlain's four pictures, pages 225 and 226, seem to fulfil the most exacting requirements. Those unpretentious portraits epitomize the amplitude of the artist's abilities and resourcefulness. None but an earnest student and close observer can hope to interpret the subtle grace and charm of adolescent womanhood. How convincing and gratifying are these portraits by a master-mind as compared to the perfunctory and mechanical attempts to obtain a likeness that one sees so frequently displayed, either in a professional show-case or an amateurs' exhibition. It goes to show that the process of making true portraits is one gained only after prolonged, intelligent and whole-souled study, and facilitated by natural gifts of a high order, as exemplified by an artist of the rank of Orrin Champlain.

The pleasing genre, page 229, is a cleverly executed imitation of a Dutch interior—maiden in clumsy wooden shoes, and spinning-wheel put aside in favor of a more urgent domestic duty. The lighting is natural and effective, and the composition is free of incongruities that usually mar essays of this sort. The plate is one of a series of grain-plates made for PHOTO-ERA several years ago.

Among the seven pictures selected by the jury to compose the 1915 salon, at the last convention of the P. A. of N. E., was "Stratford Marsh," shown on page 230. It is the work of an amateur of exceptional ability, and remarkable for the power of its theme, simplicity of design and breadth of execution. The picture produced a profound impression, and many were the compliments extended to the amateur-artist. Data: 8 x 10 view-camera; 14½-inch Verito; color-screen; late P.M.; rather dull; sun obscured; 8 x 10 plate; Rodinal; 14 x 17 green carbon print from enlarged negative.

A landscape of singular beauty of composition and treatment, also in this collection of salon pictures, is

"Meadow-Brook," page 232. With artistic discretion, the artist has subdued the importance of the magnificent cloud-effect, otherwise the pictorial interest would have been divided. Nevertheless, it seems that without detriment the meadow could be in a less low key, although the present richness of color is extremely effective. Data: 8 x 10 camera; 8 x 10 plate; pyro; Artura print.

The commanding view of the Penobscot River, Maine, page 235, is a splendid subject for a camera-picture. The outlook from this point—South Orrington, ten miles south of Bangor, looking southerly—is quite famous, and should yield a number of pictorial impressions varying in character according to the time of day and weather-conditions. Mr. Blacar chose a moment when the vast aspect was aglow with sunshine, and when the Bangor boat came into view, to be utilized as a feature in the composition. No data.

As a one-plane pictorial design, "Murillo Tulips," page 236, fulfils its mission gloriously. The picture is a triumph of immaculate and effective technique, and the arrangement is felicitous in easy grace and flowing line. As an achievement in realistic photography, the picture deserves the highest praise. Data: April 14, 1915; 10.30 A.M.; dark, rainy; 5 x 7 Auto Graflex, Goerz Dagor, F/6.8; 8¼-inch focus; smallest stop; 2½ minutes; 5 x 7 Seed Ortho; 5 x 7 P. M. C. Bromide print.

## The Photo-Era Monthly Competition

THE subject, "Public Buildings," was accorded a liberal interpretation by participants in this competition, consequently not a few of them missed the mark entirely. For instance, a pictorialist—fascinated by the architectural beauty of the Woolworth Building, in New York—achieved a superb impression of the lofty structure, towering above its fellows and pictured against a cloud-filled sky. But, unfortunately, an office-building could scarcely be classed as a public building, and so this superb effort, together with others of a similar character, was excluded by the jury. Fortunately, several of these truly pictorial subjects will be seen in future numbers of PHOTO-ERA as independent contributions.

Those were illustrious days when, in a burst of enthusiasm, Bostonians spoke of their city as the Hub of the Universe—a corruption of Dr. Holmes' humorous remark that the Boston Statehouse was the hub of the solar system. But, though much of the glory that surrounded the capital of Massachusetts when it was the center of America's literary, artistic and musical life and the mecca of men of letters has departed, enough still remains to entitle Boston to an honorable place among the cities of intellectual achievement. The muses are loath to forsake the sheltering niches of Harvard University, Symphony Hall and the Statehouse. The last-named edifice is quite extensive with its great wings; but page 245 depicts the main structure, with the famous gilded dome. In the foreground stands the equestrian statue of General Hooker, by Daniel Chester French (horse by Potter). It is, altogether, a typical and well-rendered view of the capital of the Bay State. Data: August, 1915; 2 P.M.; full sun; 5-inch Sylvar lens; stop, F/16; B. & J. Ingento 3-time ray-

filter;  $\frac{1}{8}$  second; Imperial Duonon  $3\frac{1}{4} \times 5\frac{1}{4}$ ; pyro, tank; 6 x 8 Wellington Bromide print.

On page 246 we have a characteristic bit of the interior of New York's great Public Library. The artist chose the moment when the lighting was diffused and mellow, so that the ensemble appears as an harmonious and convincing result. Data: About noon in August;  $2\frac{1}{2}$  minutes; Ilex Anastigmat with supplementary lens, reducing focus to 5 inches; pointer set at F/11 mark, but effective aperture really about F/8 with extra lens in use; Cramer Inst. Iso,  $3\frac{1}{4} \times 4\frac{1}{4}$ ; 10 x 12 enlargement on Velours Black, Semi-Matte.

Notre Dame of Paris, historic and hoary, still stands, unharmed by the hand of the invader. Who is it that dares predict its ruin? The top of the quay that surrounds the Île de la Cité, on which Notre Dame is situated, is composed of light-colored stone which asserts itself unpleasantly in a photograph, made from whatever viewpoint. Here this line joins a similar one of a bridge that spans the Seine, dividing the picture-plane in two nearly equal parts and marring the unity of the whole. However, this defect is not so serious as it might be, and is neutralized, so to speak, by the soft reflections in the water, and the pleasing sky. Data: September, 1913; 2 P.M.; sun with clouds; No. 3 Cartridge Kodak; N.R. lens; stop, U. S. 8; inst. exposure; Eastman N. C. film; Rodinal; strengthened with Agfa Copper Intensifier; 5 x 7 Enamelled Bromide print.

The interior of the Pennsylvania Station, page 248, is a theme that tempts the skill of the pictorialist; but the chief difficulty seems to be the selection of the moment when the pedestrians are not too promiscuously scattered. Karl Struss, in his noble treatment of almost the same theme, was very successful with this annoying feature; see PHOTO-ERA for June. In trying this subject again, Mr. Clark will doubtless seek to simplify the composition by changing his viewpoint and the time of day, and by exercising more patience with regard to the errant commuters. The print itself is superb in tonal quality, and the workmanship throughout is admirable. Data: Watch-Pocket Carbine, with attachment for plates  $4\frac{1}{2} \times 6$  cm.; Beck Mutor, F/4.9; full opening;  $\frac{1}{10}$  second; Seed Ortho L. Non-Hal.; hydroduratol in tank; 8 x 10 print enlarged on Barnet C. C. Smooth Matte; M. Q.

### The Beginners' Competition

In choice and treatment of motive, in spacing, and rendering of tone-values, "Casco Bay," page 250, represents a highly successful achievement in pictorial photography. Ordinarily such efforts are in too high a key, or marred by excessive contrast. Here, objectionable highlights have been avoided and, while the brilliance of an approaching sunset is present, there is a suggestion of twilight—presaging the end of day. Data: Poco 5 x 7; Turner-Reich Anastigmat; stop, F/32; June; 6 P.M.;  $\frac{1}{50}$  second; Paget E. R.; M. Q.; print 5 x 7 Aristo Self-Toning.

"The Path to the Village," page 253, is very nearly a double picture. The footway is a motive by itself; the tree, with the fence and rocks as companions, is another. The upper rail of the fence hardly suffices to bind the two together; yet the scene, as a whole, is very pleasing. The perspective, too, merits high praise. Data: July, 2 P.M.; bright light; bulb-exposure; 5 x 7 camera; Planatic lens; stop, F/32; Standard Polychrome; 4 x 6 print—celluloid between sharp negative and Special Velvet Velox to give softness.

The white rose depicted by Mr. Boisse, page 254, excels by reason of the successful way of lighting and the artistic arrangement or selection of the floral group.

Data: June, 1915; noon; diffused daylight; 4 x 5 plate-camera;  $6\frac{3}{8}$ -inch Zeiss Kodak lens; F/16; 1 second; Anti-screen plate; Dianol; 5 x 7 print, part of 4 x 5 negative, on Wellington Chamois.

The tastefully arranged triptych, page 255, is based on an harmonious and artistic design. The motive and the format are particularly well adapted to this scheme. Data: February 4, 1915; bright;  $2\frac{1}{4} \times 3\frac{1}{4}$  Ica;  $3\frac{1}{2}$ -inch Carl Zeiss, F/6.3; stop, F/16; 4-time color-screen;  $\frac{1}{8}$  second; N. C. Eastman film; Eastman tank-powders in tank; 4 x 9 print on V. B. Semi-Matte.

### Pictorial Atmosphere

THERE is one thing that the so-called pictorial photographer loves so much that he carries it about with him for use as required, and that is atmosphere of all kinds and qualities. Give him atmosphere, or give him death. If he cannot get the real thing he simulates it by burning smoke-producing materials from his pocket, or he puts lumps of atmosphere into his subjects afterwards by elaborate and unblushing faking. But to the telephotographer atmosphere is anathema. It floors him. It is not only that there is so much of it between him and his subject, but it is of so many kinds, and all wrong kinds, too. The result is that his subject is blotched, and blurred, and distorted; and, worst of all, it flickers to such an extent through air-vibration that it will not keep on the plate. The ordinary photographer, who wants atmosphere, should go around with the telephoto man, and he will find he is more than welcome to all the atmosphere there is.

THE WALRUS, in *Photography and Focus*

### Halation in Portraiture

IN many examples of portraiture made out of doors in the brilliant lighting which has prevailed during the past few weeks, we have noticed the prevalence of halation in the modified yet objectionable form in which it is manifested when lightly attired subjects happen to be photographed against a dark ground. In almost every instance such halo disfigurements go hand in hand with hardness of the gradations. The fact, of course, is that a plate which is fully exposed and calls for no degree of forcing in development will scarcely ever show halation even in circumstances where one which has received and requires the opposite treatment in exposure and development respectively will show it badly. Even without backing, it is surprising what immunity from halation is enjoyed by a good plate which gets ample exposure and is treated with a developer in which sufficient density is secured within three or four minutes at the most. Many striking examples of this procedure in interior subjects have been shown, and, applied to the less difficult conditions of portraiture, the method ensures reasonable freedom from halation.—*The British Journal of Photography*.

### Only Human Nature

"THAT man wants his photograph to look as natural as possible," whispered the assistant to the proprietor of the studio.

"Then make it as handsome as you can," came the quick reply.

"But — but he's awfully ugly, and insists he does n't want the portrait to flatter him at all."

"He won't think it flatters him," said the proprietor knowingly. "He'll only feel sure that at last some one has managed to catch him looking just right."

Answers.



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## Jack Frost's Appeal to the Camera

THE first bright, crisp days of autumn, when "the frost is on the pumpkin, and the corn is in the shock," mark a sharp turning-point in the year's progress. They emphasize one advantage of the middle temperate zone over the tropical or sub-tropical. They put an end for the time being to the activity of germ-life. They banish the mosquitoes and send the flies into hibernation. They redden the sumachs and gild the maple. They open the chestnut-burs and extract the bitterness from the new turnip-crop. They leave their mark on tree and fruit and flower. They freshen the blood and stimulate the vital energies. They have a tonic effect upon all healthy animalism, and minister with discerning impartiality to the higher sensibilities. They arouse, they energize, they inspire, they delight. They put the zeal of consummation upon nature's service for the season. They open the gates, and light the way by gentle approaches to the rigors of the months that are to come. Truly, this outer portal of winter is the pearllest of them all. It is a time for harvest-home, for feasting and for fatness, and a time to realize that, until further notice, New England is the Beulah land of the nation.

*Boston Transcript.*

## Boston's Leaning Tower

SEVERAL correspondents who, at first, were disposed to question the photographic accuracy of the picture "Look Well to the West," and subsequently discovered that they were mistaken, have asked to what extent the tower actually departs from the perpendicular.

According to the best sources of information, the diagonal lean, in 1875, at a point 25 feet below the hand-rail of the bell-deck, was 8 inches; in 1877 it was 15 inches; in 1889, 16½ inches. Between July, 1889, and March, 1892, the settling of the same half-way point, as measured at right angles to the street-line, increased half an inch. To-day the inclination of the tower, measured at the very top, is something over three feet.

## No Fault of the Tank

ANENT certain troubles connected with tank-development — a subject treated editorially in the October issue — I still maintain that they arise from carelessness of the operator rather than from any fault of the method. Here is a professional darkroom-assistant who develops several hundred plates an evening — the result of a day's work. He has no difficulty on account of bubbles, for he knows how to avoid them; but he does not understand the cause of certain streaks or regularly formed stains on his negatives which have occurred during development — several times of late. After a careful and prolonged investigation it was discovered that he had poured the pyro developing-solution into the tank, but minus the carbonate. He at once made up for his neglect by adding the forgotten alkali solution. It never occurred to him that, although he shook the tank — containing fifty 8 x 10 plates — energetically several times, it was not sufficient to produce a thoroughly homogeneous solution. The resulting uneven density influenced the plates unequally, hence the mysterious markings.

## Incongruous Photographic Terms

A "PHOTO" has been described as a photograph by a "gent." — *Photography and Focus.*

Yes, a "gent" in tight "pants" returning from "lunch."

Another English cotemporary speaks disapprovingly of the term "operator" as applied to the man who does most of the important work in a professional photographer's studio. This question has been discussed frequently at national conventions in America, and, on account of its unpleasant suggestiveness, the word "operator" has been superseded by the more appropriate term "artist."

Speaking of photographic nomenclature, I regret to read in a distinguished English weekly that Miss Alice Hughes is referred to as a "lady photographer." Why not "woman photographer"?

## A Guilty Conscience

THE nefarious ticket-business was the undoing of one photographer at a recent photographers' convention. It is a tender subject with some photographers. As a group of studio-proprietors was entering the convention hall, in time for the afternoon-session, some one inside the entrance called out, good-humoredly, "Tickets, please!" One irascible individual retorted gruffly, "I am not in the ticket-business!"

## Photographic Smiles

SOME one advertised in the *London Times* recently the only photograph of Queen Victoria smiling. It was suggested that the exposure was made after a conversation with Disraeli, for he amused her. She liked his unconventionality, also his extravagant flattery, which never failed to produce a smile. This moved a writer in the *Boston Transcript* to narrate his reminiscences of long ago:

"This takes us back to the days when the photographer clamped your head with a vise-like machine and said, 'Please assume a smiling expression,' or 'Look pleasant,' adding under his breath, often alcoholic, 'if you can.' Hence the fatuous smirk of Aunt Vashti and the inane grin of Uncle Everett in his uniform of 1892 and with a wealth of whiskerage. These photographs are in the old album now, carefully hidden from public view on a shelf in the spare room upstairs. To-day the photographer, professional or amateur, is not so personally concerned with the facial expression of a subject. He not only would take Cromwell with all his warts; he would add some if he could, that the picture might be strikingly realistic. The most amiable of men thus often appears photographically as a murderer that has just thrown the body of his victim off the pier. Mr. Soothington, the eminent philanthropist, is taken by those who know him only by his photograph, as Old Skee-zucks, who grinds the faces of the shivering poor in ramshackle tenements. Mr. Sargent, they say, takes a fiendish delight in bringing out the unenviable traits of character lurking in those sitting for him, especially if they are wealthy and greatly respected in the community. He paints with soft soap in comparison with certain photographers."

# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## Announcement by President Dozer

TO THE PHOTOGRAPHERS OF AMERICA; GREETINGS.

In assuming the office of President of the Photographers' Association of America, I extend greetings, and hope for a speedy return of business-conditions that will bring a period of prosperity to photographers such as they have never experienced before.

Members of our Association have noticed that the P. A. of A. has taken on new life and we are doing things. We are not only holding a convention each year, but we are, through the efforts of our secretary, beginning to be of real service to members of the profession every day in the year.

The policy of the new administration is not only to continue the progressive work already begun, but to inaugurate some new measures which we hope will place American photography on a higher plane than it has yet attained. The Code of Ethics adopted by the P. A. of A. at Indianapolis, and by most of the sectional conventions held since, if lived up to, will do more to elevate photographers in the eyes of the public than anything suggested heretofore. We must go a step farther and insist that our members are ethical in fact as well as in promise.

We hope to have for the consideration of Congress, at Cleveland, other matters that will be of vital interest to every man and every woman engaged in photography. If they are received favorably by our legislative body, each member of our Association will be given the opportunity to put himself alongside other professional men, and his business will be regarded as honorable and as legitimate as any other profession. Why should it not be?

The key-note of the 1916 convention will be to get more business for the photographer. While we expect to have the usual art-instruction, the strong features of the convention will be to show photographers how to increase their business and how to make a financial success of it. We hope to make a part of our program especially attractive to the man who has not yet arrived — to "the comer." Some of our programs in the past have shot over the heads of many of our members.

It is too early to give out much concerning program, etc. I have but outlined what we have in mind for 1916. We ask that the photographers of America interest themselves enough in what we are trying to do to take out a membership in the P. A. of A. It costs but a little over a half cent per day, and if 5,000 photographers will support us to the extent of a membership, I assure you that your Executive Board will accomplish things worth while.

We will welcome suggestions that tend toward making either the Association or the convention of greater service, and a help to our membership.

Faternally yours,

L. A. DOZER.

*Bucyrus, Ohio, Oct. 1, 1915.*

Be at war with your vices, at peace with your neighbors, and let every year find you a better man.

*Benjamin Franklin.*

## An Ardent Admirer of Daguerre

PROBABLY the most enthusiastic admirer of the genius of Daguerre on the Pacific Coast is Claud H. Simson, of Santa Clara, Cal. We received recently a copy of the *Santa Clara News* which contained Mr. Simson's tribute to Daguerre, the inventor of photography and the style of photograph bearing his name, followed by a plea that the photographers' associations throughout the civilized world celebrate his birthday in an appropriate manner. He also urges every motion-picture house to display his portrait upon the screen, and suggests that the executive board of the P. A. of A. publish an accurate portrait of Daguerre, and cause to be made, in bronze or terra cotta, a one-quarter life-size bust of the great inventor, both to be available to every true photographer for use in his show-case and as a permanent adornment in his studio.

These are laudable suggestions, to be sure; and there is no doubt that most state-associations in this country will celebrate Daguerre's natal day, November 18, in one form or another.

As to the participation of Great Britain in this observance, we have our doubts; inasmuch as the English authorities have steadfastly refused to recognize Daguerre as the real inventor of photography, but have conferred that honor on Fox-Talbot, who, history tells us, originated the negative and duplicating-process — a mechanical advance on Daguerre's method of individual positive pictures. We hope sincerely that the national association, too, will follow up its magnificent act of erecting the beautiful monument to Daguerre, in Washington, D. C., by celebrating, regularly and fittingly, the birthday of the great Frenchman, truly the inventor of photography.

## Photographic Course in Brooklyn Institute

AMATEURS in greater New York and vicinity will be glad to know that a course in practical photography, connected with a loan-exhibition of prints, demonstrations and lectures, will be given at the Brooklyn Institute of Arts and Sciences, for the season of 1915 and 1916, from October 7 to April 20. A prospectus for this course, with which Clarence H. White, W. H. Zerbe, Paul Lewis Anderson and Augustus Thibaudau are identified, may be obtained from William H. Zerbe, 345 Spruce St., Richmond Hill, N. Y.

## Frederick Gutekunst

ALL those who have at heart the noblest expression of photographic portraiture will rejoice that we still have with us one of the shining lights of the art as exemplified in the last quarter of the nineteenth century — Frederick Gutekunst. This genial exponent of artistic portraiture recently celebrated his eighty-fourth birthday, in Philadelphia, the city where he has been active for a period of fifty-nine years, and acquired distinguished success, having photographed more prominent men than has any other photographer in the country. Among sitters of note, and whose portraits adorn his old-fashioned studio, are Edward Everett, Henry W. Longfellow, Edwin Booth, Edwin Forrest,



Walt Whitman, Generals Grant, Meade, Hancock, Longstreet, Sherman, and Wu Ting-Fang, William McKinley and Bishop Phillips Brooks.

A remembrance that the aged artist prized particularly was a letter from John Wanamaker, accompanied by a bunch of orchids. It read as follows: "My dear old friend Mr. Gutekunst: I am told that this is your birthday. It is good to see you around, and your friends rejoice to see you still at the head of the profession that you have distinguished for so many years by your artistic proficiency. I hope that you will still continue in good health, and that this day and all days will be happy days." Mr. Gutekunst, it may be remembered, was mentioned as one of the past-masters in portraiture in our editorial, "The Lessons of the Past," in the September issue.

### Maurice G. Gennert

THE death of Maurice G. Gennert, head of the well-known firm of manufacturers, dealers and importers of photographic supplies, G. Gennert, of New York, came as a shock to a large circle of friends and to the photographic trade. He had always appeared as a man of rugged constitution and to enjoy the best of health and spirits. However, about two and one-half months ago, Mr. Gennert contracted pneumonia, from the effects of which he never recovered, and October 2, he passed away. He was an active, successful business-man, and was beloved for his sterling qualities of mind and heart. His departure from this life is a great loss to his family and to the photographic industry. His brother and junior partner, Gustav C. Gennert, will continue as manager of the business, under the old name of G. Gennert.

The following resolutions, adopted by the Photographic Dealers' Association of America, at a special meeting, reflect the esteem in which the late Mr. Gennert was held. They are approved heartily by the Publisher of PHOTO-ERA, who knew him personally for the past thirty years, admired his business-acumen and respected him highly.

### Preamble and Resolution

At a meeting of the Photographic Dealers' Association, held at the Hotel Biltmore on October 7, 1915, the following motion was read and unanimously adopted, viz.:—

Whereas—The announcement of the death of Mr. Maurice G. Gennert having been made to this body in meeting here assembled, and

Whereas—The deceased was long identified with the photographic trade, and an esteemed and respected member thereof, and furthermore a man of kindly ways and of a lovable nature, and

Whereas—His untimely removal from the sphere of his activities will be keenly felt throughout the trade generally, and his loss have an effect that will be a distinct one and far-reaching,

Be it therefore,

RESOLVED: That in the death of Maurice G. Gennert, this Association desires to go on record as expressing its deep sorrow and regret, and hereby instructs its Secretary to send a copy of this Preamble and Resolution to the family and to the firm of the deceased, and furthermore to spread same upon the minutes of this Association in regular form.

(Signed)

J. W. ALLISON, *President*.

(Signed)

CARL E. ACKERMAN, *Secretary*.

### To All Pictorial Workers

THERE will be an Exhibition of Pictorial Photography at the Print-Gallery, 707 Fifth Avenue, N. Y., during the month of December. Any pictorial photographer may submit three prints before November 15, and they will be passed on by a jury of three prominent men in the art-world. The jury will consist of Henry W. Kent, Secretary of the Metropolitan Museum of Art, Albert Sterner and another well-known artist. For further particulars address the Print-Gallery, 707 Fifth Avenue, New York.

### Dwight Tracy

DR. DWIGHT TRACY, physician, dentist, inventor, genealogist and prominent citizen of Norwich, Conn. who was 84 on August 24, died suddenly of heart-disease, October 3, at the home of Gerald L. Ranger, where he had come but a few minutes before to talk to Mr. Ranger about photography, a subject in which they both were interested. In his death amateur photography has lost one of its most ardent devotees and a man who has had an exceptionally interesting career.

Being an inventive genius, Dr. Tracy pursued the practice of dentistry for six or seven years only, after which he devoted himself to various inventions, some of them highly profitable, for which several patents were issued to him between 1860 and 1889. The more important included a perfected domestic sewing-machine; a machine which would take a bolt of linen, which, as it passed through, was cut and plaited and stitched into a complete shirt-bosom, ready to insert into the garment; a railroad frog and crossing; a wire-drawing machine designed to draw a large number of wires of varying size at one time; and a friction car-starter for use on horse-drawn street-cars, to avoid the jerk upon the passengers and horses.

While genealogy had absorbed most of his time for the past twenty years, Dr. Tracy had for the last five years taken a lively interest in photography, desiring to become proficient in order that he might obtain pictures of old houses, monuments and other objects of historical interest. That he had made splendid progress in this line of work is evidenced by the fact that he had gained favorable mention for his portrait-photographs, which were shown at photographic exhibitions, and that he had received a second prize for a portrait entered in a competition conducted by a current photographic magazine. The fact that a man eighty years of age should care to begin the study of photography casts an interesting sidelight on his personality.

With the advent of the aeroplane he became greatly interested in its tremendous possibilities, and began to work on the design of a light and powerful motor and stabilizer. He was still working on these designs at the time of his death. Last August he applied for a patent on a certain photographic process which he had evolved, and this episode in his life goes to show how persistent was his tendency to invent.

### Kodaks in Argentina

SOUTH AMERICA in the past has drawn most of its photographic materials from European sources, but the war has interrupted the supply. That American manufacturers have not been slow to embrace the opportunity thus afforded is shown by the report that in Argentina a new company has been formed for the purpose of handling the products of the Eastman Kodak Company.

## LONDON LETTER

CARINE AND WILL A. CADBY

THE Royal Photographic Society has got together in spite of the war a not uninteresting show. Possibly there is on the walls a greater number than usual of the sort of works that should never, at least in 1915, appear in a big international show; but indifferent prints, like disease, are always with us to a greater or less extent, and this year no doubt they have monopolized rather more space than usual, the reasons for which are obvious.

But apart from this, there is a large number of exhibits at the Royal that makes it well worth a visit. To begin with, A. L. Coburn has emerged from obscurity once more, and is given a place of honor, his six pictures being hung together in the middle of one of the walls. He has accurately gauged the feeling of the times, at least in this country, and shows three pictures called "War," "Peace" and "The Munitions-Factory." Needless to say, they have all got the Coburn charm, are decorative, thought-inspiring — which is a valuable quality in a photograph — and original in conception and execution. But in two of the subjects one feels that if they had only been more mechanically produced they would have been truer to nature, and regrets for the disappearance from the market of those delightful Cristoid films — double-coated — that we remember Coburn amongst others of us used, came strong upon us. It was the Cristoid film's mission to ignore any little mistakes in the way of overexposure, and to give marvelous negatives, with the clouds well defined, but keeping their place back on the horizon.

Clarence H. White has a small wall all to himself. It is a long time since we have seen any of his work in London, and we hoped for great things; and if we were a little disappointed it was because we expected too much. His pictures are fine, but we would not exchange an early "Clarence White," that hangs in sight as we write, for any one of the pictures he is showing. This may be prejudice; but, any way, it speaks well for a photographic print if one can see it almost daily for years and yet not tire of its lines or subject; and this is certainly true of the one before us. But we must realize that the time has come when photographers, even the best of them, can no longer make sensational leaps ahead as in the old days. There was so much ground to be covered then, the standard was so low; and any sign of originality was hailed with applause. Now the average has crept up to an astonishingly high level, and the masters of ten or fifteen years ago are lost amidst their followers and imitators.

Amongst the veterans Frederick H. Evans holds his own, and so far unassailed, place in architectural photography, and shows a beautiful study of Rheims Cathedral. Here, at least, no imitators can follow in his steps, for we all know what has happened to Rheims Cathedral. Of the younger men, Hugh Cecil — who, by the way, has a professional studio in London — is decidedly coming to the front. He has persisted (unlike many other workers) in retaining in his portraits that wonderful quality of gradation that photography alone can give, although otherwise he is quite modern in his treatment.

There are many attempts at Swiss mountain-scenery. Obviously, the artists have tried for too much — that is, they have gone for subjects containing the extremes of glittering white snow-covered mountains in the dis-

tance, and somber fir-clad valleys in the foreground. This combination no present-day negative, let alone the printing-process, can embrace successfully, and the results are uniformly disappointing. There is a fair number of color-plates; but why are these so wearying when arranged in endless rows of shaded boxes? It is difficult to say whether it is the method of exhibiting or the monotony of the vivid-colored garden-scenes shown. We want a Steichen to lift color-work above its present level, as he did in the early days of the Lumière plate.

There are the usual trade-exhibits in separate rooms, and it was a relief to find in one a little gallery of familiar portraits by Coburn, shown by Duckworth the publishers, advertising Coburn's collection of celebrities. There is an illustrated catalog.

The "Snapshots from Home" scheme has grown considerably since we last wrote. As our readers already know, it was organized by the General Secretary of the Young Men's Christian Associations, and he has wisely enlisted the help of the photographic trade in carrying out the work. Offices have been allotted at the headquarters of the Y. M. C. A. in Tottenham Court Road, where a staff of skilled assistants receives and classifies all applications for "snapshots from home," and arranges with photographers to take them. Mr. Percy Wright (of Houghtons Ltd.) is in command, and we found him very busy when we called a few days back to hear the latest news of the undertaking. But he found time to explain the working of the system, by which nearly every town in England is dealt with and photographers induced to make the photographs. Mr. Wright also discovered that he had two applications for photographs from our village (Borough Green), and, as so far there were no workers appointed there, he pressed the applications into our hands, and us into the work, and we came away enrolled in the army of helpers. We were given to understand that virtually all the work is done voluntarily, and, of course, the photographs are supplied gratis.

The *Daily Mail* still continues its war-photographs. The sinking of the *Majestic* was the last photograph to take a £1000 prize. It was certainly an excellent snapshot, and is on sale as a picture-postcard. One thousand pounds is a high stake; but it shows that the *Daily Mail* measures pretty acutely the difficulties in the way of obtaining such negatives, for those who have the best chances are sure at the time to be otherwise engaged.

The firm of Wellington & Ward seems determined to make its gallery in Holborn a success from the educational point of view; for since we last mentioned it, it has been rehung with fresh pictures. Naturally, all these prints are on the firm's bromide paper; but they are exhibited by a variety of people, and the charm of the various tones obtainable on their new B.B. paper is astonishing. We all know and have seen the remarkable colors that are easily produced with certain toners, such as greens and blues; but these have always been viewed by us as comparatively useless experiments, for they were colors no one would want to employ. But the firm of Wellington & Ward seems to have devoted itself to getting variations of sepia and warm black that are eminently satisfactory and useful for pictorial work. We notice that a delightful, red-brown, delicate portrait-study on a white background (taken by Mr. Kay, of Bolton and Manchester) was obtained by using the old alum-hypo toning-formula. This was on the B.B. paper; but the effect was absolutely different from the results we used to get with the bromide papers of other days. Indeed, the variety of shades of good browns was a revelation.



The firm of Wellington & Ward issues a small pamphlet called "The Wellington Bromides," which every user of bromide paper should possess, as it clearly describes both the development and toning of bromide papers, and gives several formulae for both processes.

This letter has been held back a day so as to report the opening of the Photographic Salon this afternoon (September 17) with the usual private view. We say usual; but it was in reality a very unusual private view, for half the familiar figures were in khaki or nurse's dress. But the chief note in comparison with last year's function was the cheerful assurance of the people and the absence of depression. The first shock of the war is past, and we have all settled down to do "our bits."

The absence of German and Austrian photographs is not felt so much, as the representation of Americans who have sent a fine collection; indeed, twenty-six percent of the whole show comes from the States.

### Film Famine in Germany

As is well known, it is on account of the dearth of films, especially roll-films, that the embargo on the importation of films was raised, although, nevertheless, it would have been impossible to meet the demand in sufficient quantities of a material so important — now, in war-time. But it is in Austria, more than here, in Germany, that the need of films is felt, so that, as we have stated previously, Austrian dealers have been obliged to buy up films from German firms, and at retail-prices. Especially, after the retaking of Lemberg, the photographic supply-stores in Austria, notably in Vienna, were crowded with customers eager to buy films. Inasmuch as the Austrian dealers themselves had little or no supply, they could not satisfy their customers, it happened, for instance, that as much as 7.50 crowns (\$1.52) was paid for a single roll of films. It was not a question of price, but rather to provide films, at all, which were wanted especially by the troops.—*Photographische Industrie*.

### A Clever Business-Stimulant

PHOTOGRAPHERS in every city of consequence in America can well adopt the procedure of the Photographers' Association of the Cincinnati Chamber of Commerce to create Christmas business. Not long ago announcements were sent out for the Annual Fall Exhibition, which was held at the Union Central Building, Cincinnati, October 11 to 16. The announcement was handsomely designed and printed, and included a little talk on portrait-photography and why portraits make such acceptable Christmas gifts. Then followed the names of the members of the association. Another page was similarly devoted to the benefits of commercial photographs in various lines of business, supplemented with the names of the commercial photographers of the association. Finally there was a page devoted to the advantages of home-portraiture, and a list of the members who specialize in that branch of portraiture. Such a scheme of coöperative advertising, coupled with an exhibition of the work at just the right time of the year, accomplished more for every member than any one of them could possibly have accomplished for himself alone. It is not too late to do this elsewhere at once.

### A Good Excuse

*Wife* — "I don't think your new suit is fast-colored; I'm afraid it will fade dreadfully in the sun."

*Husband* — "I'm, perhaps I'd better go out more at night then."—*Fliegende Blätter*.



## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.*

**THE SCISSORS-BOOK.** By William Ludlum, Jr. For the use of children. 40 full-page illustrations (cut-outs) by the author, with full directions. 8 x 10 inches. Unique, decorated cover. Price, \$1.00. New York and London: G. P. Putnam's Sons.

The name of William Ludlum, Jr., is familiar to PHOTO-ERA readers as a photographer and writer of signal merit. His poetry is appreciated for its freshness, directness and simple dress. In his photographs he has always shown a decided preference for clear-cut designs, which propensity has found vent in the form of humorous, fanciful and symmetrical figures, intended to entertain the children, and grown-ups as well. Each figure, cut out of paper with ordinary scissors, depicts sometimes a human, sometimes an animal, with a humorous rhyme on the opposite page. All is done most cleverly — done to amuse, to divert, to cheer. Verily, merrily, a children's book!

**THE SPELL OF SOUTHERN SHORES, OR, FROM SEA TO SEA.** By Caroline Atwater Mason. 53 photo-illustrations. Decorated art-cover. 419 pp., 8 vo., \$2.50 net; prepaid, \$2.70. Boston, U. S. A.: The Page Company.

Of all the "spells" which have come to us, bringing their tales of foreign lands, none is more filled with interest and charm than the "Spell of Southern Shores," the latest of the Spell series. Profusely illustrated with original photographs, it is not merely a handbook to guide or to refresh the memory of the traveler, but a very interesting account of two ladies, mother and daughter, who are visiting cities and antique ruins along Italy's shores. Graphic descriptions, history and romance are charmingly interwoven, and the book is so well written that it must find many and permanent friends among its readers. The places visited and described by the author are along the shores of Italy, from Genoa, on the Mediterranean, southward, encircling Sicily, and northward, ending at Venice, on the Adriatic, and including several conveniently accessible inland-cities — Pisa and Rome. The termination of this fascinating journey was synchronous with the assassination of Archduke Franz Ferdinand, of Austria, the last week in May, 1914; but, though fair Italy may not be accessible to the American tourist for another year, Mrs. Mason's charming book will be found a very acceptable substitute.

**ON SUNSET HIGHWAYS** — A book of motor-rambles in California. By Thos. D. Murphy. With 16 color-plates, 40 photographs in duogravure and automobile-map. Decorated cover. 388 pp., 8vo., \$3.00 net; prepaid, \$3.20. Boston, U. S. A.: The Page Company.

Whoever has enjoyed Mr. Murphy's "Three Wonderlands of the American West" — one of the most attractive publications of the Page Company — will surely welcome "On Sunset Highways." The author has penned his interesting narrative with genuine

enthusiasm, taking the reader in his machine into the deep recesses of hill and valley to unfrequented nooks along the seashore and to the slopes and summits of the mountains. The best time for roads and weather is during the months of April, May and June. The three tours covered by the author totaled about 13,000 miles, all of it — except two round trips to San Francisco — lying south of Santa Barbara. With his party he climbed many mountains, visited the endless beaches, stopped at the famous hotels, all of the twenty or more old Spanish missions; saw the orange-groves and palms of Riverside and Redlands, the great oaks of Pablo Robles, the queer old cypresses of Monterey, the Torre Pines of La Jolla, the lemon-groves of San Diego, the vast wheatfields of the San Joaquin and Salinas Valleys, the cherry-orchards of San Mateo, the great vineyards of the Napa and Santa Rose Valleys, the lonely beauty of Clear Lake Valley, the blossoming desert of the Imperial and a thousand other things that make California an enchanted land. Of course, they stopped at well-known cities from San Diego to San Francisco and beyond.

The author has colored his story with bits of the romantic history which individualizes the various missions, so that, together with the numerous color-plates of exquisite beauty — facsimiles of paintings by Moran, Gamble, Coult, Gay, Morgan, Hagerup, Hobart, Gray and others — the book appeals to every person with a sense of the beautiful. To the camerist it unfolds boundless picture-material, and to the eager traveler it says, "See your own country first!"

**ELEMENTARY PHOTO-MICROGRAPHY.** By Walter Bagshaw. Third Edition. Numerous illustrations. 16mo. Price, cloth, 2/9 d (in U. S., \$1.00). London, England: Iffe & Sons, Ltd.

Those who have longed to do something in the field of photo-micrography, but have hesitated because of the complicated and expensive apparatus that seemed to be necessary, will straightway begin the practice of their chosen hobby upon reading this book. It is essentially an elementary handbook, and it certainly fulfils its mission in showing how easily excellent results may be had with simple instruments, contrivances and the application of much commonsense. There is a conspicuous absence of unnecessary technical terms and details, the style is simple, direct, and the information very comprehensive. The numerous illustrations have been carefully chosen for variety of subject and treatment, and set for the student a high standard of excellence.

The text of this third edition has been thoroughly revised and new illustrations have been added. Also there are forty pages of additional subject-matter on color-photography, fine focusing with high powers, instantaneous exposures, coloring and toning lantern-slides, color-screens, multiple color-illumination, negative-enlarging, diatoms as a hobby, natural history, etc.

### A Unique Studio

POSSIBLY the most unique photographic studio in America has recently been opened by W. B. Dyer, formerly of Cincinnati, and more recently of Chicago. It consists of two acres of woodland at the edge of a gorge of the Hood River, Ore., and has been christened "Canyon Crest." This section of the state has developed rapidly during the past five years and now offers a prosperous field for a photographer of skill and artistic feeling. Mr. Dyer is a member of the Photo-Secession of New York, and the Linked Ring of London.

### The Development of the Techno-graphic Arts

ALMOST coincident with the Editor's review of the achievements of Daguerre in photography, the *Journal of the Franklin Institute* publishes a carefully prepared and very readable article on the "Development and Recent Advances of the Techno-graphic Arts," by Louis Edward Levy. Separating the reproductive, or indirect, from the direct forms of the graphic arts Mr. Levy traces the discovery of the more important processes of to-day from their beginning, in 1813, when Niepce began to work out a method of photo-engraving on lines pointed out by earlier discoveries of the light-sensitive properties of certain resinous gums.

The close relation of reproductive work to photography has not been overlooked. Daguerre's association with Niepce and his son is recalled, and the discovery of the daguerreotype is described and its tremendous influence upon the public mind commented upon. Mr. Levy writes: "At this time another important discovery in the field of photographic chemistry was formally announced through the Royal Society of Scottish Artists by Monge Ponton, and published in the new *Philosophical Journal of Edinburgh*, in May, 1839. Ponton had experimented on the lines indicated by the French chemist Vauquelin, who had discovered chromic acid in 1795, and had observed that the red color of chromate of silver became purple on exposure to light. Ponton found that paper impregnated with bichromate of potassium was very sensitive to light. By placing a translucent object on such sensitized paper and exposing it to light he produced a picture of the object in tones of brown, modulated according to the varying amount of light passing through the object, and could fix the object by simply washing it in water.

"At another juncture this discovery would have attracted universal attention, but the dramatic announcement and governmental publication of Daguerre's discovery produced such a furore among the general public, and in the scientific world as well, that not only did Ponton's discovery go unnoticed, but the promising results in photo-engraving that had been obtained by Niepce were also entirely overlooked. A striking commentary on this condition is the fact that the daguerreotype, notwithstanding its early improvement by Herschel, and later by Fizeau, had before 1870 become a thing of the past, while Niepce's method, further developed and improved by his cousin, Niepce de St. Victor, about 1850, came gradually into extensive use and remains so to this day, and the photo-engraving processes based on Ponton's discovery have become universally applied."

Then are traced in chronological order the developments in mechanical and chemical technique which made possible intaglio etching, photogravure, intaglio engraving, lithography, collotype, pigment or carbon printing, electrotype, rotary press printing, zinc etching, stereotype, halftone, polychrome photo-lithography, three-color photography, three-color photo-engraving and printing, rotary photogravure and offset printing — the last three being the highest types of printing to-day, and all dependent upon photography. In the reading of this comprehensive review the student will find much to interest and instruct him, emphasizing as it does that the development of the graphic arts was simultaneous with that of photography, and in many instances, especially in its early days, owed its being to the same men.

*Kitty* — "Mr. Huggins asked me to sit in the hammock with him last night. What do you think?"

*Marie* — "I think you got in."



# WITH THE TRADE

## Exploitation by Swindlers

As the manufacture of certain photographic chemicals, notably developing-agents, is closely allied to that of aniline dyes, the dearth of the latter—owing to war-conditions—has created an interest in this country that is being exploited by unscrupulous concerns and individuals.

As long ago as last March, PHOTO-ERA warned its readers to beware of buying stock in companies organized to manufacture certain important dyes, hitherto imported from Germany, and which are difficult, if not impossible, to obtain at the present time.

In view of known difficulties, which are of an industrial and economic nature, it is safe to say that the successful manufacture of products that represent fifty years of continuous research and experimentation by chemical experts is not likely to be achieved in a few months, nor in several years, despite the scientific skill and material resources which this country affords.

As Dr. Chas. H. Herty, president of the American Chemical Society, has stated publicly: "The unscrupulous have taken advantage of the public interest in an industry that has been tremendously stimulated of late. We are offered a vast, new field for development and investment, under certain conditions; but it must develop slowly. The chemist knows only too well that dye-stuffs require much time and technical knowledge to develop, and he looks with suspicion on some of the concerns that have begun to sell stock on the announcement of their entrance into this industry. It would be a shame if the future of the industry in this country were imperiled because of the unscrupulous manipulation of a few men who saw an easy way to fool the public."

## Ipsco Reflex Camera

FEW speed-cameras have enjoyed such well-merited popularity as has been accorded the Ipsco Reflex during its three years on the American market. It was designed scientifically and is built accurately of the best materials obtainable by skilled instrument-makers, and a discriminating public has realized its worth. That it has not been found necessary to alter the design or construction of the original model indicates conclusively how favorably it compares with other cameras of similar character. Space does not permit a detailed description of its particular excellences, which are common to its several sizes from  $2\frac{1}{2} \times 3\frac{1}{2}$  to  $4 \times 5$ , but a handsome special catalog has been prepared for this purpose which will gladly be sent to any interested person by the International Photo-Sales Corporation, 11 East 40th St., New York City.

## For Rapid Printing

EVERY camerist who values his time, or has only a little to devote to his chosen hobby, will welcome the Curry Amateur Hand-Printer advertised on another page. Not only is it a labor-saver when several duplicate prints are wanted from one negative, but it improves the quality and uniformity of the results, and eliminates trimming, ensuring a perfectly even, white margin. Only four motions are required.

## Awards for the Bausch & Lomb Optical Co.

THIS well-known firm announces with justifiable pride that it has been awarded four Grand Prizes, one Medal of Honor and one Gold Medal at the Panama-Pacific Exposition. The four classes in which the Grand Prizes were bestowed are optical instruments, Balopticons, engineering-instruments and range-finders. The division, optical instruments, comprises seven classes and covers the company's ophthalmic lenses, microscopes, parabolic and Mangin mirrors, field-glasses and magnifiers.

The Gold Medal was given for photographic lenses, the highest in this industry, and with special reference to the Ic Tessar F/4.5, and the VIIa Protar.

The class to which was awarded the Gold Medal includes the firm's photo-micrographic apparatus, which consists of a special camera and microscope to photograph specimens of diminutive size. No Grand Prize was awarded on account of the war in Europe, which prevented foreign manufacturers from entering and competing. The firm is to be congratulated upon its well-merited triumph.

## F. L. Wright's New Store

THE photo-supply, mail-order and photo-finishing business established and managed for fifteen years by F. L. Wright, at 819 Park Avenue, Racine, Wis., has grown to such proportions that Mr. Wright has been obliged to seek much larger and better quarters—since October 1, at 211 Sixth Street. Promptness and efficiency, politeness and integrity, practised constantly in treating his patrons near and far, have gained for Mr. Wright an enviable reputation.

The best wishes of his appreciative customers and the publisher of PHOTO-ERA are extended to Mr. Wright in the management of his new and centrally located establishment, now one of the largest and best-equipped in the state.

## An Available Expert Photographer

ANY manufacturer or large photographic supply-house needing the services of an able, energetic, all-around American photographer, whose business in Nova Scotia has suffered severely on account of the war, should read the applicant's classified advertisement in this month's issue.

## Flashlight-Work

At this season of the year when so much work is done by flashlight we cannot refrain from calling attention once more to the folly and danger of home-made flash-powders. We are constantly asked to furnish formulae for making explosive powders, but invariably refuse, referring all enquirers to our several advertisers of powders and lamps, such as J. H. Smith & Sons Co., The Imperial Brass Mfg. Co., and the Prosch Mfg. Co., all of whose products it is a pleasure to endorse. Obviously it is folly to incur the danger of making explosive powders without experience, when ready-prepared powders of uniformly high quality are so readily obtainable at moderate prices.



# Christmas, 1915



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**To Advertisers:** Advertising-rates on application. Forms close on the 5th of the preceding month.

**Published Monthly**, on the 20th, by Wilfred A. French, 383 Boylston Street, Boston, Mass., U. S. A.

**Entered as Second-Class Matter** at the Post-Office, Boston, under the act of March 3, 1879.

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**Yearly Subscription-Rates:** United States and Mexico, \$1.50 postpaid; single copy, 15 cents. Canadian subscription, \$1.85 postpaid; single copy, 20 cents. Foreign subscription, \$2.25 postpaid; single copy, 1 shilling.

**Agents for Great Britain**, Houghtons, Ltd., 88-89 High Holborn, London, W.C., England, with whom subscriptions may be placed.

## Photo-Era, The American Journal of Photography

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Cable Address, "Photoera"





A CHRISTMAS-EVE DREAM  
KATHERINE BINGHAM



# PHOTO - ERA

The American Journal of Photography


Vol. XXXV

DECEMBER, 1915

No. 6

## The Education of the Photographic Artist

PAUL L. ANDERSON, E. E.

T is not claimed that the opinions which I shall express in the present article are necessarily correct beyond question, since no one can justly assume infallibility; but they are mainly the result of inductive inferences drawn from observations made during the course of my work as student, writer and lecturer, and for that reason may possibly have some value.

The modern system of teaching, so far as this country is concerned, seems to be founded, as regards both schools and universities, on the assumption that education consists of the memorizing of a number of more or less related facts, this assumption being one which seems to me to be utterly fallacious and incapable of producing the highest type of development. It is true that it is adapted to produce the popular American ideal, the business man, and it is equally true that it is of value in developing the diligent plodder; but in order to cultivate whatever spark of original genius the individual may possess some other method is imperative. Our present system may develop a Terburg or an Edison, but a Newton or a Turner will grow in spite of the system and not because of it, for the use of the imagination is necessary to the production of works of art as well as to scientific discovery. Some one may ask why an effort should be made to develop genius at the expense of mediocrity, when the great majority of the inhabitants of this world are unquestionably mediocre; but the answer is very simple. Every normal person possesses congenitally some of the characteristics of genius, and if an endeavor is made to assist the growth of these characteristics the result will be a higher standard of mediocrity, with a correspondingly higher level of genius.

The question then arises, "What is the quality which distinguishes between mediocrity and genius?" and the reply lies, I believe, in the word used in the preceding paragraph, "Imagination." Most persons, if asked to name the distinguishing

characteristic of genius, would say that it is the ability to think, that is, to reason; but, reduced to the last analysis, this ability is nothing else than imagination, combined with the power of mental concentration. Both inductive and deductive reasoning require the formation of abstract mental images by the recombination of portions of concrete images; and this is the power which indicates the scientific investigator. In the case of the artist precisely the same ability is required, for he also takes objective images and reunites the parts in different form, in order to make a new and homogeneous whole, it being well known that neither the artist nor the scientist nor any other individual is able to create new images. Men make new discoveries, and use the images thus gained for the further modification of their old ones; but no human being has ever created a new image of any sort whatever. Since all forms of genius are either scientific or artistic in character, there being no sharp line of demarcation between the two, it follows that whatever system of education increases the imagination — literally, the power of forming images — will necessarily be productive of a higher mental level, and it is for this reason that I decry the present mnemonic system of education, which can but give concrete images, without endowing the student with the power of recombining them into new forms. Necessarily, however, the imagination must be as well controlled and ordered as any other bodily function if it is to be of value to the possessor or to society at large.

Since, then, the fundamental requirement of the genius is a good imagination, it remains to see how that faculty is to be developed, and there is only one manner in which any power can be increased, the means being indicated in one of Spencer's laws of growth, "Development varies as function." That is, any faculty whatever — assuming, of course, a normal individual — increases with exercise, and that is the only



way in which it can be made to grow. When I was in college I studied Graphical Statics under a most delightful and most irritating professor — delightful personally, and professionally irritating, as will be seen. Many times, after working to the limit on a problem, I would appeal to him for help, and the answer was almost invariably as follows: "Well, friend, I'll tell you. Let's have your pencil, friend." Then, after looking for some time at the problem, he would lay down the pencil and say: "No, friend, I won't tell you. Work it out for yourself, friend. It'll stay with you longer than if I told you," and away he'd go, leaving me divided between the desire to weep and the longing to swear. However, he was right; it stayed with me longer than if he had told me the answer, or even suggested a method of approach; and more by far than the knowledge gained was the education. "Development varies as function." So, in writing and lecturing, I try to follow the plan of my professor, and make the student use his own powers rather than rely on tabloid information; and to such an extent do I carry this principle that the reply, "Think," has become a by-word with my pupils. It should be noted that the imagination — that is, the logical faculty — may profitably be employed in all phases of the artist's work, since what the artist terms "feeling" is in reality nothing except the unconscious correlation of the objective image before him at the time with the subjective mental concepts resulting from former objective impressions.

A work of art, to be of permanent and enduring value to the race, must, as I have elsewhere pointed out, arouse in the spectator some emotion or sentiment of an elevating character; and in order that this purpose may be accomplished it is necessary that the picture be in some sense a transcript of life. Inasmuch as the human entity consists of three parts, body, mind and spirit — the best psychologists are agreed that the human being does possess a soul, despite the contentions of the materialists — it follows that a fine picture must have three analogous parts, and we may easily trace the analogy. The technique of any art-medium may be likened to the body; the design, that is, the arrangement of lines and masses or of color, to the mind; and the animating thought or sentiment to the spirit. Obviously, a picture may be simply a design, beautifully expressed, and such a one may be likened to the hedonist, who lives for the day only, or it may have a fine thought, but fail in design or in technique, when it may be compared to the man of great soul who, lacking either education or physical strength, is of little value to the race.

Since, then, the artist must have imagination, a sense of design and technique, the question is how to develop these faculties. It is apparent to every one who has ever considered the question of education that no one can teach any one else anything; that all education, whether it is true development or merely memorizing, must result from effort on the part of the student. It is, however, true that a good teacher may be of great value, for in the one case he can direct the pupil to sources of information, and in the other he can stimulate by means of suggestion and encouragement. We may, therefore, consider the manner in which technique is to be taught, since that is the simplest to teach of the three qualities needed by the artist. Lectures and demonstrations by a competent instructor, with suitably graded problems and stringent — but constructive — criticism of the pupil's efforts, will accomplish this satisfactorily, provided the desire for knowledge exists in the student's mind; and in this matter of the desire for knowledge lies another of the failings of our public-school system, which insists that all pupils shall memorize certain facts, regardless of possible interest or lack thereof in the particular subjects comprising the curriculum. In some cases, of course, an especially able instructor can stimulate an interest in his subjects; but this is due to the teacher and not to the system. In teaching design, the method should depend somewhat on whether the student is working in photography or in one of the other plastic arts, for the photographer's approach to composition is different from that of the painter, sculptor or architect. The photographer finds his arrangements in nature, and his function is to appreciate and to extract such portions as may be complete in themselves; whereas the other worker begins with a blank space which he fills in a more or less satisfactory manner. Hence, the painter's composition is synthetic, the photographer's being analytic. Of course, this is not invariably the case; sometimes the photographer builds his design himself — this is especially true in genre — and sometimes the painter simply paints directly what he sees before him; but in the main the case is as I have stated it. Therefore, the student of photography should be led into the presence of satisfactory designs by the great masters, should have pointed out to him the reasons why they are satisfying, and should be encouraged to take his camera and look for good designs himself, his efforts being, of course, subject to criticism, exactly as in the case of his technical endeavors. I would not, however, be understood as implying that the photographer should ignore synthetic design entirely — actual work in the construction of arrange-



HIS CHRISTMAS-DINNER

*Courtesy of The Amateur Photographer*

W. J. PIPER



ments and in space-filling will prove of great value to him; but I feel that greater stress should be laid on the analytic form unless the student intends to confine himself to genre-work. There remains the question of training the imagination, and this is the hardest of all. A careful student can teach technique and design, provided the pupil is desirous of learning; but to teach imagination, the subjective part of the work, an inspired genius is needed. Dick Heldar said of Kami: "He taught by inspiration, I swear. All he ever said was, '*Continuez toujours, mes enfants; continuez toujours;*'" and that is about all that a teacher of subjective approach can say, or, for that matter, need say. He can, though, insist that the student make an effort to express in each print some thought or emotion, that he never make an exposure heedlessly, and that he try to make even his technical exercises true pictures. Also, the teacher can use to good advantage Kami's other phrase: "*Il y a du sentiment, mais il n'y a pas de parti pris*"—"It has feeling, but it lacks decision;" for decision is one of the greatest of all assets, and is the one most frequently lacking in the work of the student. It may be noted that decision is of two kinds: that referred to by Kami, which is definiteness of thought, and that referred to by Tom Welton, in "The Rules of the Game," when he said, "It is n't doing things, but deciding them, that makes a man." Therefore, the student should always endeavor, not only to have a definite purpose in view, but also to reach conclusions promptly, thereby strengthening a good mental habit, since the photographer's opportunities often last but a few seconds, and vacillation may result in the loss of a good picture.

There remains, then, only to determine in what order the three elements of the work should be taken up, and, though most persons feel that technique should precede the others, I myself consider that all should be studied simultaneously. Obviously, it would be foolish to teach the student what he should express but give him no opportunity of expressing it, and I believe it to be equally absurd to give him the power of expression but leave him unable to use it through lack of anything to say. True, some workers have a very definite idea of what they wish to convey, even before they take up the study of photography; but these are few, and the great majority should be encouraged to develop harmoniously. This can best be done by criticizing each of the student's prints for the three essentials — thought, design and technique — and by impressing on him the necessity for employing all three in each instance. He should always have an answer ready for the question "What thought were you

trying to express?" and he should always try for the most expressive design and should always aim at the best possible technical result.

A very important point to which I have not yet referred is the proper size of the class, and this is limited by several considerations. Obviously, in simple lecturing, a person can talk to an indefinite number; but if the students are to receive the greatest possible benefit from the lectures they should be encouraged to ask questions freely, and if they are interested in the subject they will avail themselves of this privilege. This at once places a limit on the size of the class, since if too many questions are asked there will not be time enough to answer them all satisfactorily. In demonstrating, only as many students can be accommodated as can get within easy viewing-distance of the demonstrator's hands; and if the class exceeds this number it becomes necessary to repeat the demonstration, endangering the lecturer's freshness of spirit unless he takes care to change the form of his demonstration; and in any case consuming double the time required for a single demonstration. In criticism, time places a limit on the number of prints that can be considered; and of equal importance is the drain on the nervous energy of the teacher, this being no small consideration. I myself find six hours of lecturing and demonstrating to be as fatiguing as ten hours of hard physical labor; and criticism makes quite as much of a demand on the teacher's energy. So it will be seen that the best size of class is a matter for each instructor to determine for himself; and all that can be said here is that care should be taken not to exceed the number that can be properly handled. One man I know of limits his class to six pupils, but I think that most persons, by arranging the work to best advantage, could teach a greater number than this, probably five or six times as many being taught satisfactorily, if one devotes his entire time to it.

In conclusion, I would say that, although technique and design are absolutely necessary to full expression, it must not be lost sight of that they are but sterile and worthless things unless the user has a message for his kind. But, with the power of expression, even the slightest message, if it is a true one, becomes a glowing and living thing, affecting for good all people to all time.



Don't crowd your composition. Let your tree or your mountain have breathing-space. Keep them away from the edge of the frame. They will gain in dignity and apparent bigness by diminishing rather than increasing their proportions.— *Birge Harrison.*



VEILED BY FALLING FLAKES

WILLIAM S. DAVIS

## Some Notes on Winter-Subjects

WILLIAM S. DAVIS

**I**AM sure no nature-lover can fail to enjoy the pictorial charms of winter-landscapes as presented in many phases after the Frost-King has worked his magic over the land. In one direction is seen a dazzling array of thickly loaded boughs, while below "Snows pil'd on snows in wintry torpor lie." On a walk over the uplands one may be reminded of "The churlish chiding of the winter's wind;" but in the woods the sting of the north wind gives place to "Lusty winter, frosty but kindly," and we are held spell-bound by the numberless variations of tree-groups wrapped in snowy garb, and, on bright days, wonderful sunshine- and shadow-effects forming fanciful patterns over the billowy snow and revealing in a delicate manner all the broken

texture of its surface. Such, however, are only a few of the aspects possessing pictorial value to the camerist, and it is well to remember among others the peculiar beauty imparted to certain scenes when "The strong north wind sends driving forth the blinding sleet and snow," blotting out distant landmarks in a whirling fleecy shower, also the possibilities in winter moonlight-scenes. But enough of such reminders, as no doubt every reader familiar with our northern climate can readily recall memories of many walks under similar conditions, and likewise of efforts to preserve upon plate or film some of the most attractive subjects met with under varying atmospheric conditions.

In the matter of composition, beginners frequently make the mistake of including too much,



due, I suppose, to the fact that when attractive material is abundant they think that if a little is good more will be better. Without doubt it is sometimes difficult to know what to omit, but until one has learned the art of selection good compositions cannot be obtained, except by accident.

The habit of analyzing effects in a search for their cause is of the greatest value to the pictorialist, for however much personal pleasure may be experienced by sensitive people through the emotional appeal of beautiful lines and colors, the sensations experienced cannot be given visible form to impress others in like manner unless the particular combination of elements is ascertained and made the theme of the picture, and the more delicate or elusive the impression received the more necessary is it to know what was responsible for it.

It is especially needful for the photographer working in monochrome to determine whether the foundation of an attractive subject rests upon color or tonal quality. Of course, both are present in practically all subjects, but in variable proportion, so when the color-values can be translated into monochromatic tones without losing the character of the mental impression received it is safe to conclude that there is a chance for successful photographic treatment.

Good tone-values are very important in every snow-picture, and in some compositions the impression it is desired to convey rests almost entirely with them. In other cases, however, an intricate line-pattern — produced by snow-covered bushes and trees — must also be carefully looked after to avoid a confused effect. The shadows upon sunlit snow add still another factor to composition, both as to tones and lines, and are just as important as the objects producing them. In fact, they are sometimes more so in foreground-studies, being not only valuable in completing some otherwise imperfectly balanced composition, but making beautiful pictures when only enough other material is used to indicate the source of the shadows.

Whether to work in sunshine, to take advantage of strong shadow-effects, or in diffused, cloudy light, must depend upon the nature of the subject. If the several elements composing the scene fall naturally into harmonious lines and masses, the addition of clearly defined shadows might cause discord, so if that proves the case one would naturally choose diffused lighting.

The direction from which the subject is lighted is also deserving of thoughtful attention. The surface-texture of the snow is undoubtedly brought out better by working somewhat against the light, since this brings the shadow-side of every little undulation toward the observer in contrast with the raised portion in full light. Such treatment would not be advisable, though, for snow-covered branches seen only against a background of open sky, because the snow would appear quite as dark in tone as the background. Under such circumstances the most brilliant effect is obtained when the light falls *upon* the branches, preferably direct sunlight a little to one side.



A WINTRY PATH

WILLIAM S. DAVIS

Under these conditions it is easy with the aid of a ray-filter to preserve the contrast between the sky and snowy tracery.

Open landscapes, like meadows, rolling upland with distant hills, the banks of lakes or streams, etc., often form natural flat-tone compositions which adapt themselves well to decorative treatment by handling the several parts *en masse* so as to obtain broad interesting space-divisions composed of a few simple tones. Take the illustration "Gray Winter," for instance. This consists principally of four tones, namely, the large light mass of snow upon the foreground-bank of the pond, the long narrow strip of the opposite bank of nearly the same value, separated by the wedge-shaped gray mass of the pond itself. Then the lighter gray of the sky fills the upper part of the picture in an unobtrusive manner, allowing the interest to rest upon the snow, and at the same time keeping the whole in the proper "key" to express the idea of a dull winter's day, while to complete the effect the darker notes in the trees and stray bushes

serve to accent the broader tones. Minute details in open compositions must take a subordinate place, otherwise they injure the feeling of breadth and freedom which should prevail.

Details sufficiently beautiful in themselves to hold the attention are best treated in a more intimate manner, i.e., as foreground-studies, taking just enough material to suggest the charm of the whole as presented to the eye, but not so much that the leading lines cannot be followed readily. A simple clump of wayside bushes or a few sprays of weeds often possess strong decorative possibilities. "Touched by the Frost-Spirit," which is suggestive of what I mean, was made at the edge of a field containing some asparagus-branches covered with ice and snow, and so few were needed to make the composition that the camera was placed but a few feet from them. An attractive arrangement of snow-covered tree-branches can be rendered best by making the image large enough to show their forms without confusion, as a little will suggest much more than

is shown, because one naturally assumes that anything of this nature is typical of its kind, therefore the imagination has enough to work upon. Of course, there are subjects in which snow-laden branches form an interesting part which cannot well be confined to foreground-bits, but in such cases it is generally possible to introduce some effective mass (say a tree-hole of interesting shape) for a center of attraction, and use the interlacing pattern of slender twigs as a delicate background.

From a technical point of view the main consideration is how to preserve the tone and color-values as seen by the observer. A large expanse of snow cannot be represented by unbroken white paper in the print, for every variation in the surface causes some slight changes in tone, and this "texture" must be suggested to give quality to the picture. Equally, the darkest tones require attention, since the shadows are modified by refracted light from the snow, in addition to that diffused through the atmosphere, and in no case are shadows absolute black.



TOUCHED BY THE FROST-SPIRIT

WILLIAM S. DAVIS



To hold gradation at both ends of a long scale it is evident that a plate or film possessing wide latitude is essential to success, as the dark shadows can be rendered adequately only by exposing long enough to obtain the gradation in those parts, making some overexposure upon the snow unavoidable if the lighting is strong. However, as the darkest portions of the average landscape are composed mainly of the less actinic colors, while the snow in both light and shadow reflects a great deal of blue and violet (the most active colors of the spectrum), the best way to overcome the difficulty is to use color-sensitive plates or films as an aid to ensure detail in the dark portions, and when contrasts are great, or very delicate snow-details and blue sky are present, place a ray-filter upon the lens to hold back the over-active tints in the highlights. For the average scene a three- to four-time filter, like the Ingento "A," is sufficiently strong, but owing to the fact that the degree of emphasis given the blue tones, as compared with the rest, is largely in proportion to the depth of the filter used, a stronger one, such as the Ingento "B" or Cramer

"Visual Luminosity," is useful. If plates are used it is best to select the double-coated "non-halation" grade, or apply a suitable backing to the regular kind.

If for any reason one cannot give the extra exposure demanded when a filter is employed, excellent results are possible by using the "Anti-Screen" or "Self-Screen" plates imported by several dealers. These really give results similar to those obtained with ordinary orthochromatic plates and a pale filter, with the additional advantage of possessing at least as great speed as the latter without a filter.

When developing snow-pictures it is advisable to employ a solution of moderate strength (say not over 1 to 2 grains of reducer to the ounce for tray-use) and then take care to stop before the highlights become too dense to print well.

~

An efficient, honest office-holder, kept in place because he does his work well, is the best remedy for waste and graft the wit of man has yet devised.



GRAY WINTER

WILLIAM S. DAVIS

# Lens Facts and Fallacies

J. A. DAWES

**F**IRST, let me call attention to a few "faults" in lenses which do not exist. This no doubt sounds strange, but if you were to sit with me at my desk and see some of the letters which I receive, you would realize what I mean. It is remarkable to note the limited knowledge of lenses possessed by the average photographer. Many times the lens is condemned because the plateholder and lens are not parallel, giving a negative with sharpness at one edge of the plate and gradually falling off towards the other edge. Then, again, the lens is blamed for not covering when the rising-front is used with a ray-filter, which projects some distance beyond the front lens-hood; or because the bellows sagged; or perhaps in view-work, because the bellows was not racked out so that the folds cleared the angle of the lens. And it has sometimes been called to my attention that a perfectly good lens, of the type of the Cooke Portrait, or the Wollensak Velostigmat Series II, or Vitax, was not perfect, as it did not give any kind of definition, when the operator neglected to notice that the diffusion-device was set so as to diffuse the negative.

Spots on negatives have frequently been attributed to the air-bubbles so frequently looked upon as defects, but which I assure you are a mark of quality in any high-grade anastigmat. They are the visible proof that the lens is made of the best glass of the proper constituency.

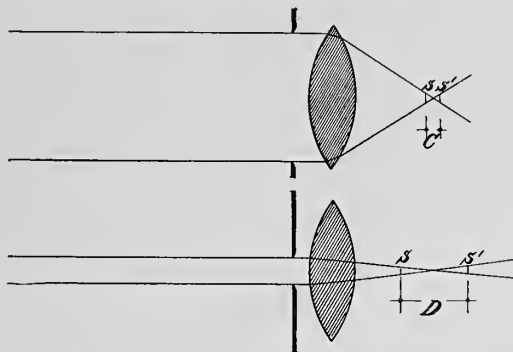
Another question very frequently asked is — "Will an 8 x 10 lens used on a 5 x 7 plate be faster than a 5 x 7 lens on a 5 x 7 plate, each lens marked F/4.5?"

Now let us get this fixed clearly in mind. An F/4.5 lens is an F/4.5 lens, regardless of what size plate it is used on. With the 8 x 10 lens on an 8 x 10 plate we have no more speed on the 5 x 7 center of that 8 x 10 plate than we have on the rest of the plate, and the 5 x 7 center of an 8 x 10 plate is equal to the 5 x 7 plate used with an 8 x 10 lens. It is not possible to use the excess covering-power of a larger lens, but this extra illumination is lost in the sides of the camera and bellows. It certainly is not concentrated onto the smaller plate. The advantage of a larger lens on a small plate is to gain focal length and improve perspective; also to gain a larger size image, but this, of course, sacrifices the angle of view.

Passing on from these special points, let me take up a few matters about which we read so much yet know so little.

First, what is depth of focus? Just what do we mean by that term? It is the distance or range, front to back, over which a lens at a given aperture gives definition. All lenses which are corrected give definition at one plane, but those at a large aperture have not the depth which those at a smaller aperture have, or which the same lens would have if stopped down.

Let us get this one point clearly in mind: All lenses of the same focal length and aperture have the same depth of focus. Stop talking about Jones's F/4.5 12-inch focus lens having greater depth than Brown's F/4.5 12-inch lens — they both have the same. However, Jones's lens may give better definition over that depth, because of better corrections, and thereby give the impression of having more depth. The depth of focus of a lens is not dependent upon the quality of the lens, but rather on the stop used. For in-



stance, with a large stop we have less depth than with a smaller stop, the depth being governed by the angle of the cone of light emerging from the lens and being transmitted to the plate. By studying these diagrams you can see that using the smaller stop we have the same definition over the field *D* as we have over the field *C* with the large aperture, the smaller aperture giving much more depth.

Passing on, we come to the question of lens-speeds. Almost all manufacturers have been contradicted many times by users of their respective lenses regarding the speed. It is surprising how many photographers will measure the largest aperture of their lenses and divide that into its focal length, then complain to the manufacturer because it figures about F/5.6 instead of F/4.5, as marked. They do not take into consideration the refractive power of the glass to





IN OLD MENTONE

H. A. LATIMER

reduce the rays of light which pass through the front lens before they reach the diaphragm-opening. It would be far more accurate to measure the diameter of the front lens instead of the diaphragm-opening, or, to be still more accurate, place a circular piece of bromide paper in the lens-cap, place the cap on the lens, setting the diaphragm at the largest opening, then expose the paper by means of the rays of light from a candle passing through a pinhole in the back of the camera, with the scale set at infinity. By measuring the diameter of the exposed portion of the bromide paper and dividing it into the focal length of the lens, you will obtain the approximate speed.

Now for just a few moments let us discuss the different types of lenses; i.e., the ordinary R.R., the portrait and the "mysterious" anastigmat. What are the limitations of each? What is each type for?

Before referring to the R.R., I will just call attention to the simplest form of lens, known as the single achromatic. This is composed of what are known as a crown and flint glasses. It has but one essential correction; that is, "to make a picture." By this phrase I mean that the lens is corrected so that the yellow and green rays of light which form the visual image on the ground-glass fall on the same plane as the blue and orange rays, which form the actinic image on the sensitized surface of the plate. It will be understood by this that the rays of light to which the eye is most sensitive differ from the rays which act most strongly on the emulsion of the plate; hence, were the lens not corrected so that both fell on the same plane, the image would be clear on the ground-glass when focused, but would be out of focus on the negative.

From this simplest form we pass to the rapid rectilinear type, generally termed the R.R. lens.

For many years this was the most popular type, but of recent years it has given way to the modern anastigmat. The R.R. lens has its advantage over the single achromatic inasmuch as it is corrected so as to render straight lines as straight. With the S.A. lens straight lines are distorted.

Turning for a moment to the portrait-type of lens, before passing on to the anastigmat, I would just state that by general consent the term portrait-lens is applied to any lens of the Petzval formula, or a modification of it, such as the Vitax. The portrait-lens is ideal for strictly studio-work. It has a curved field, great speed and longer focal length for the size plate than other types. It produces those lifelike stereoscopic "standing-out" effects so desirable in portraiture.

Photographers to-day make a mistake in their tendency towards short-focus lenses. It is a fact that many complain of the distortion they obtain when making large heads with a perfectly good  $9\frac{1}{2}$ -inch focus lens, the only real trouble being a lack of about 6 inches in focal length. Let me urge upon you that for studio-work the little extra money required for the next size larger lens would be an investment returning big dividends—provided, of course, that your studio will accommodate it.

So, to sum up the case for the portrait-lens, it is ideal for studio-work, including large heads, three-quarter lengths, full lengths, small groups, etc.; but here we meet its limitations, as it is not desirable for large groups (because of its curved field and limited covering-power), neither can it be used for any kind of general or commercial work.

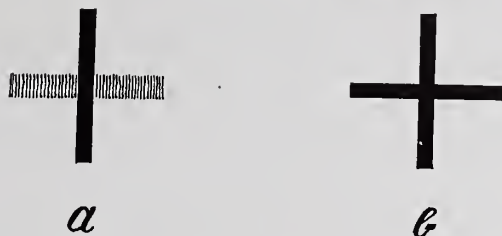
And now, before I close, let me describe the most modern of objectives—the anastigmat. I will endeavor to tell you of this lens in a few words, outlining the finer corrections to be found in it which make it most desirable for such work as requires snap, sparkle and microscopic definition. In addition to the correction found in the S. A. lens and the R.R. type, the anastigmat is also corrected for spherical aberration, which is that correction which causes all the rays of light passing through the lens to fall in one plane. If the correction were not made, the rays forming the image would come to a focus in different planes, giving a negative quite sharp in the center, and somewhat out of focus at the edges, or vice versa.

Then there is the correction for astigmatism. This merely means that the lens will photograph both vertical and horizontal lines with the same degree of sharpness. The cheaper grade of lens will not do this. For example, sketch *a* repre-

sents the work of the R.R. type, while *b* represents the anastigmat.

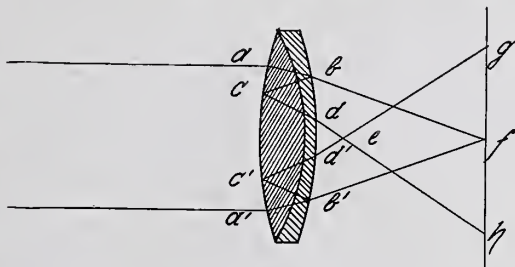
Coma and flare might be summed up in this definition:

"A lens free of it is corrected so as to eliminate the pear-shaped blemish caused by the oblique rays from a bright point of light near the margin of the field of view resulting from the unequal magnification of the different zones of the lens,



these zones being defined as imaginary circles, dividing the surface of the lens into concentric rings."

However, flare, as it is generally understood, is due to the reflecting of a small portion of the rays of light from surface to surface of the lens, and thence to the plate, causing secondary images of bright points in the picture. Its discussion is a big subject, and a special discourse could be given on the one question of flare, but here I must skim over it and try to give you a general idea, though there is much I shall touch upon. Probably the most comprehensive idea can be had by studying this diagram (for which



I am indebted to "Photography for Students of Physics and Chemistry," by Louis Derr). The simplest form is shown here:

"A part of the light of the rays *a b* and *a' b'* will be reflected back along the paths *b c* and *b' c'*, and a part of this will be again reflected in the direction *c d* and *c' d'*, finally emerging, coming to a focus at *e*, and then spreading over the plate in the circle *g h*."

The principal image comes to a focus at *f*, while the secondary image at *e* spreads until it reaches the plate. These reflections cannot be avoided, but they can be minimized by the de-



signer of the lens in arranging the position and curvature of the surface so as to spread out the reflected light and not concentrate it into a small portion of the negative. In the cheaper grade of lenses chiefly, these reflected rays are more or less concentrated, forming what is commonly known as the flare-spot or ghost.

This gives you in a concise way a general idea of the different types of lenses, and a much abbreviated definition of some of the terms so common in the discussion of photographic lenses. So, as a final word, let me mention that for landscape, architectural and commercial work, copying and enlarging an anastigmat lens is the ideal objective, one with a speed of F/6.3 or F/6.8 being

preferable. For newspaper, speed, home-portrait, group and general studio-work, an anastigmat is also ideal, but one with a speed of F/4.5 is most desirable. And for strictly portrait-work, such as large heads, busts and three-quarter figures, the portrait-type of lens ranging in speed from about F/3.8 to F/5 is recommended; while for soft effects, or the modern diffused-focus picture, a special lens should be employed, designed for this purpose only. A double lens, of the soft-focus type, would be desirable, with a single combination that can be used separately.—*A paper prepared and delivered by Mr. Dawes at the convention of the Photographers' Association of New England, Boston, August 13, 1915.*

## Determining Correct Exposure in Enlarging

W. R. PRESTON



ESTIMATION of the correct exposure of the bromide paper when enlarging is the principal factor in obtaining good results, and nearly all the waste of time and material involved is due to failure in this respect.

The usual practice is to include several varying exposures on one strip of paper, and to estimate the correct exposure by developing and examining this test-piece. Even after long practice it is surprisingly easy to make a mistake at this stage.

The following method, besides giving an interesting lesson in the rendering of tones by bromide paper, provides a standard with which to compare our test-strips; moreover, it will be found in practice that only one exposure need be given to the trial-piece. A fair-sized image, say 12 x 15, of a good negative is thrown on the easel, and the correct exposure for this enlargement is found. Six pieces of paper, each about 4 x 5, are then successively exposed to one portion of the image. The first piece is given one-quarter of the correct exposure, the second one-third, and so on, until we have a range of exposures bearing the following proportions to the correct one:  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ . The six pieces are then developed to the limit in a normal developer and, after fixing and washing, are mounted together on a plain mount. Above each of the pieces is written the proportionate exposure which it has received.

We have now a permanent standard with which to compare future tests, and when making an enlargement we proceed as follows: A strip of bromide paper is placed on the easel and is given the

estimated correct exposure. The strip is developed to the limit, placed in the fixing-bath for a few seconds and rinsed. It is then examined in white light, and if the exposure happens to have been the correct one, we may proceed with the enlargement. If not, we compare it with the standard strips, and by examining the depth of the image and the various tones we determine which of these it most closely resembles. If, for instance, the image corresponds in depth and rendering of tones with the standard strip marked  $\frac{3}{4}$  we know that increasing the exposure by  $\frac{1}{4}$  will give a correctly exposed print.

It will be noticed that nearly all the standard exposures are less than the correct one. The reason for this is that it will be found much easier to compare two underexposed images, and consequently the trial-piece should be under- rather than overexposed.

If the degree of enlargement and the actual exposures given to the standard pieces have been noted we can use them to find the speed of other bromide papers. To do this a strip of the new paper is exposed under similar conditions for the same time as was given to one of the test pieces, and by comparing the results the relative speeds may easily be calculated.

The negative chosen for making the standard strips should have a full range of tones, and the tones should, if possible, be distinct from one another, as this will facilitate the comparison. The advantage of having a full range of tones is that the standards may be used to compare the test-pieces of enlargements either in a high or a low key.—*The British Journal of Photography.*

# Artistic Feeling in the Snapshot

WILL W. TODD



OME genial philosopher of the dark-room once remarked, "It takes a camera to bring out all the fool there is in a person," he having in mind, no doubt, the numberless idiotic stunts the average amateur photographer succeeds in pulling off during the agonizing term of his apprenticeship to lens and shutter, developer and hypo.

To any one, however, who is inveigled into a personally conducted tour of that modern, loose-leaf chamber of horrors designated by the proud owner as "my photograph-album — these prints are all from my own collection of negatives," it would seem that it is the subjects in front of the camera, as well, who are the victims of that insidious and contagious disease popularly known as "fool-in-the-head," and which manifests itself in an ungovernable desire to look and act as much like an escaped lunatic as possible the moment a camera-lens points in their direction.

What it is about an insignificant little black box with a bit of glass in one end that influences even staid and ordinarily dignified persons to want to emulate a monkey on a stick will always remain a profound mystery to those amateur photographers who recognize in the much-maligned snapshot-portraits of their friends and families limitless opportunities to produce really worth-while pictures, if only done with a modicum of common sense and a bit of artistic feeling.

Passing strange, it is, that a young lady whose artistic soul would go into spasms over a wall-paper that is a bit off key, who would not dream of hanging a chromo in the parlor or of introducing a Louis XIV chair into a Mission-furnished room, will hie her forth with a camera and bring back half-a-hundred 4 x 5 atrocities — libels of her friends and relatives — paste them in an album, and complacently exhibit them as the product of her imagined artistic intelligence.

Let us examine the first print. What is this — a young baboon with a severe attack of indigestion? No; it is little Jimmy making a face for Aunt Clara while she snaps his picture — he looks so cute that way, you know. And then she saw a magazine-cover not long ago of a little child making a face, and it was the "cunningest thing." Possibly; but Aunt Clara has yet to learn that it takes a mighty clever artist to photograph or draw the bizarre and ridiculous and get by with it, and she has overlooked entirely the real picture-material that little Jimmy would

furnish playing with his blocks, sitting on his velocipede, making mud-pies, hobnobbing with Fido or unconsciously and unaffectedly engaged in any of the thousands of natural and really "picturable" incidents of childhood.

And then this next picture, of Harry, little Jimmy's older brother! No doubt this unique pose he offers — standing on his head with about six inches of protruding tongue decorating his countenance — is one that is very characteristic of a ten-year-old boy; but Harry curled up on the bank of his favorite fishing-hole, a can of bait by his side and his white-shirted figure thrown into strong relief by a foliage background, while his contemplative eyes brood over the cork bobbing on the surface of the water, would make just as characteristic a portrait, to say nothing of the germ of real artistic merit such a snapshot might be made to contain. And then Harry won't squirm so much over that sort of a picture when his high-school sweetheart happens to get hold of it a few years hence.

Then this family-group that includes grandma with the two winsome little granddaughters and several proud uncles and aunts, all hilariously adorned with huge, paper dunce-caps, the entire party posed stiffly against a hideous picket-fence, with every one grinning fatuously at the camera. That is, all but grandma, who smiles a little sheepishly but resignedly, her cap tilted rakishly over one ear, her expression denoting that she is, by this time, inured to any antics that a camera-mad crowd of relatives may inflict upon her. Poor grandma, what a pity that the last picture ever made of her, and one so good in every other respect, should be so spoiled! Now if she had just been seated in her favorite armchair by that really pretty vine-covered portion of the fence which shows in one end of the view, her little granddaughters by her knee, looking at the picture-book she is showing them, there would have been a print worthy of the subject. Nothing very startlingly original in such a picture, it is true; but still one that would certainly have been worth enlarging and would be cherished through all the years to come.

Uncle Tom, the jolly bachelor-member of the family, would have made a splendid subject seated on an old bit of fence, smoking his pipe, while his old hunting-dog, the constant companion of his rambles, snoozes at his feet. Does he do it? No, *sir!* Uncle Tom must have his little joke; so he insists on becoming one of the 1,956,823





L. L. HIGGASON

CHRISTMAS-OFFERINGS

originators of the startling idea of posing in a reclining-chair, feet first, toward the camera. We all know the result — almost every fool amateur in the country has a print just like it — shoe-soles the size of a coal-barge, hitched onto a body that tapers suddenly away to a head the caliber of a shoe-button. If Uncle Tom looked like that in real life, he would be worth \$10,000 a year in the side-show business.

This pretty, sixteen-year old girl, clad in her dainty summer “fixins,” her masses of dark hair framed in a big flower-covered straw-hat, with a piquant Japanese sunshade over her shoulder, makes a model suggestive of all sorts of charming outdoor-portraits; so why this monstrosity depicting her endeavoring to introduce an entire quarter-section of watermelon into her dimpled countenance at once; or this one, where, contrary to all precedent, she is evidently becoming violently “jagged” on a bottle of former Secretary Bryan’s famous drink?

And so it goes. Close-up views of persons posed in the full glare of the sun, eyes squinted half-shut, one side of the face chalk-white and the other side soot-black, when in the shade of trees a few steps farther on is an excellent diffused light, the very kind for outdoor-portraits; picnic-groups in the everlasting pyramid formation or lock-step line-up, while the mossy bank of the nearby stream, a veritable outdoor-studio containing hundreds of possibilities in the way of artistic grouping, is utterly ignored.

But why continue the melancholy list? It could be extended to fill a volume, for there is apparently no end to the multitudinous, diabolic ways in which subject and camera-owner will scheme to spoil perfectly good films and paper in producing horrors, when it would be so easy just to use one’s eyes and brains a bit to discover the limitless artistic possibilities which these same subjects and conditions present.

It is well to remember that there is always one *best* point from which to make even the most casual snapshot, and this idea once realized and firmly fixed in mind will in time give the most careless and blindest spoiler of plates or films artistic eyes with which to see the pictorial opportunities that lie in even the most commonplace subjects.

Hence these musings, which may seem out of place in the pages of a magazine devoted to the more serious and higher plane of amateur photography, as the vast majority of the readers of this magazine have, perhaps, long ago passed the elementary stage and are no longer guilty of any of the several photographic indiscretions here described.

Any word, however, that may perchance meet the eye of the beginner, inducing him not only to refrain from adding any more “fool-o-graphs” to the pages of his album, but to fare forth along the fascinating highway of really artistic endeavor in even the least of his work, is, it is to be hoped, of itself a sufficient excuse for being.

## The Importance of Prompt Print-Development



THE latent image is something you ordinarily don’t need to bother your head about, for no one has ever been able to get on speaking terms with it. You make an exposure on a plate or expose a print, and you know you have created this latent image and that it will develop, but that’s about all. Experience, however, has taught one other thing. In printing on developing-out papers, the latent image is very likely to disappear partially if your paper is laid aside some time before being developed. Don’t take a chance. Develop your prints as soon after they are made as possible, and you can feel perfectly safe.

This latent image is a rather erratic thing. You can deliberately try to dispose of it and fail. But get real busy and expose more prints than you can develop the same day, lay them away over night, and when you go to develop them the next morning they are quite apt to appear very much underexposed.

This is not always the case, but it happens often enough so that you cannot afford to take a chance on wasting a number of otherwise good prints. And there is no known remedy for this deterioration of the latent image.

It happens most often when the exposed prints are left in a damp place, and an hour or so is often long enough time to make some difference in the quality of the developed print. Allowing exposed prints to lie while you spend an hour or two at luncheon has been known to make a difference, and the conclusion is often drawn that the paper of a certain emulsion is not uniform in speed. More exposure is given and the prints are overtimed, and the manufacturer is blamed for a result that is not at all the fault of the paper.

The above trouble will not be experienced with plates and films unless exposures are left for a considerable time before being developed.

*Studio-Light.*



# How I Reproduce Broken Ambrotypes

L. C. BISHOP



**V**EARS ago the daguerreotype and the ambrotype occupied a prominent and honored place upon the center-table in the "best parlor, right alongside of the family Bible." Then came the newer processes of photography, and for many years the images in their velvet cases were banished, and rested in trunks "up attic." However, nowadays the proud owners of these quaint pictures recognize their value, and display them together with their old Wedgewood china and Sheffield plate, all, indeed, "patents to nobility," as it were.

During the period of oblivion many of these old pictures, valuable not alone on account of their historic interest to the public, but to their owners as likenesses of loved ones long since passed away, became spotted and discolored and, in some instances, cracked or broken. Numbers of these injured ones have been thrown away, not without a sigh, when they might just as well have been saved and reproduced.

At this point it may be well to recall the fact that an ambrotype is, strictly speaking, a negative — thin, being underexposed and underdeveloped. It is a collodion wet-plate negative, with a whitish film, and, when placed over its black opaque backing and viewed by transmitted light, it appears as a positive and greatly resembles a ferrotype — misnamed "tintype" — and, sometimes, even like a daguerreotype. Ambrotypes have often been made on red glass, so as to do away with the black backing. Viewed by transmitted light, these red ambrotypes appear to have more density; but, like the other kind, they look just like a greatly underexposed negative, showing opaque highlights and transparent shadows. They are "mounted" like daguerreotypes — in embossed gilt masks and gilt rims — then placed in the familiar black cases.

The process of renovating a daguerreotype is known to expert photographers, and the reproductions made from those that have not been scratched may be, virtually, as good as from life. The ambrotype, however, while not susceptible to discolorations like the daguerreotype, was more often lost entirely on account of breakage, being of glass instead of metal, not very much unlike the ordinary negative.

The original of the illustrations was an ambrotype of Alexander Revell and his mother, and was broken by a careless servant, much to the

regret of the family, for it was their only likeness of Mrs. Revell in her younger days. The pieces were brought to me like a jig-saw puzzle, which took some time and patience to solve; but, in



A BROKEN AMBROTYPE

spite of "all the king's horses and all the king's men," it *was* put together again.

The pieces were laid, in their proper positions, on a sheet of celluloid which, in turn, was placed over a  $6\frac{1}{2} \times 8\frac{1}{2}$  glass. After squaring the edges as much as possible the outside measurements of the "puzzle" were taken, and an opening of the same size was cut in the center of a  $6 \times 10$  piece of heavy cover-paper. This cut-out opening exactly fitted over the ambrotype as it lay pieced together, and held it firmly in place.

In the darkroom I placed on the table a sheet of glass  $16 \times 20$  inches. The  $6\frac{1}{2} \times 8\frac{1}{2}$  glass, on which lay the ambrotype in its mat of cover-paper, was placed on one end of this large glass. After preparing the developer and trays, I laid a dry-plate on the other end of this same glass, its one edge close against the clear plate supporting the ambrotype, the celluloid sheet and the cut-out. With much care the celluloid, supporting the broken pieces and the cut-out, was moved to the center of the dryplate.

Now the work was simply making a positive from the negative ambrotype. It was expected that the cracks between the pieces would show to some extent; but to minimize this trouble, the light was turned on from directly above. The length of exposure had been previously determined by a test with one of the pieces of the face on a 4 x 5 plate. A clean-working, strong developer was used with bromide.

The next thing to do was to eliminate the cracks and other defects by retouching. The positive was flat, but contained all the detail. With a very sharp, hard pencil I worked out the cracks to quite an extent, touching all points which would assist in a start for the clearing up, but taking care not to lose anything by overdoing the work. The etching-knife was used, but all the work on the faces was done with the pencil.

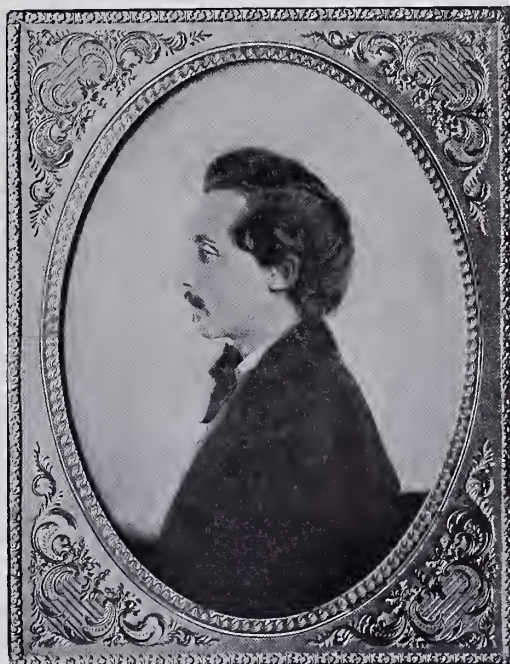


THE FINISHED COPY

A new negative was printed from this positive and developed stronger, showing an improvement not only in strength but in general appearance. I continued to work on this second negative, then made another positive, which was clean and clear and showed an astonishing amount of detail which was entirely covered in the first one. The eyes now showed better, and with a little more work the positive was, virtually, a duplicate of the finished print. The final negative, from which paper prints were made, had little touches added, here and there, with the etching-knife and pencil, to avoid working on the print.

Success in this sort of work is due to using a sharp, hard pencil patiently, and avoiding too much work on the positives, where the principal changes are made. I always use a strong, clean developer — one that brings up all there is in the plate, but works gradually to a brilliant final negative. This order was executed during odd hours, but the time consumed was more than equal to the price received. However, had I known the following simple dodge, I could have done it in much less time and it would, perhaps, have been done better. The breaks in the original would have shown much less had I placed a screen of tracing-cloth over the ambrotype before making the first negative. In order to do this, cut an opening in a plate-box lid, cover with about three thicknesses of the tracing-cloth and place over the ambrotype. Make the exposure with an incandescent light placed directly overhead, about three feet distant. I often reproduce cracked negatives in this way, and seldom see a trace of the cracks in the positive if the film is whole. When tracing-cloth is used as a diffuser, the celluloid should be removed from under the ambrotype before the exposure is made.

After an old picture has been reproduced, duplicate copies can be printed so that each member of a family can have one, where before only one print existed, and often that was in such bad condition that the possessor could not enjoy it.



AN EXCELLENT AMBROTYPE





APPLES

W. R. BRADFORD

## Panchromatic Photography by Gaslight

W. R. BRADFORD

**T**HE making of still-life studies is one of the most interesting features of camera-work; but, owing to the unreliability of the weather, we are often obliged to forego this pleasure.

But if we substitute a Welsbach gaslight for daylight, we can do our work at any time and, once having got the correct exposure for a given distance and diaphragm-size, it will vary but little unless the gas-pressure varies considerably. We will use panchromatic plates, preferably Wratten & Wainwright. I have found these most suitable after having tried three or four different brands. A panchromatic plate is sensitive to all colors including red, and extremely so to yellow light. Now as the Welsbach light is minus nearly all the blue light-rays, we will use no filter. The color-correction, of course, is not as great as daylight used with a K3 filter ( $4\frac{1}{2}$  times exposure), but it is near enough for our purpose. We will now arrange our subject, be it still-life or flowers, on a small table or stand that can be shifted easily, so as to get different lighting-effects. We will also use a white cardboard-reflector to lighten up the shadow-side of our subject.

One-half dozen sheets of cover-paper of differ-

ent colors will be handy for backgrounds, and small pieces, cut from these, should be pasted on a card and photographed by gaslight, so as to get their color-value to compare with the different subjects we shall want to photograph.

You will probably overestimate the strength of your light, so try exposing your first plate in sections. Pull the platcholder-slide out one-third and give one minute; another third and give one minute; remove the slide entirely and give two minutes. You now have three exposures, the first being four minutes, the second or center being three minutes, and the last third section being two minutes. By using large cardboard-reflectors on all sides and hanging one back of the gaslight, to throw the light to the subject, the light-intensity may be increased enormously. Take the flowers in the small, white vase, for example. The exposure for this, with a K1 filter ( $1\frac{1}{2}$  times), was made in 55 seconds at F/8. I know of no exposure-meter that will determine exposure by gaslight. Even were it so, it would be valueless for our purpose, as the panchromatic plate is far ahead of the ordinary plate in sensitiveness to yellow light. However, with the figures herein given, I would be very much astonished if you



NECTAR AND AMBROSIA  
W. R. BRADFORD







*Copyright, 1915, by W. R. Bradford*

THE WINNER  
W. R. BRADFORD



did not commence to "talk turkey" by the time you were on your third or fourth plate. I have never tried electric light on this subject, but imagine the old-style carbon-filament light would have about the same corrective value as Welsbach gaslight. The Tungsten or Mazda light would very likely need a filter, as I think they give a whiter light than gas. However, here is another unexplored region worthy of going into.

The chart used in this article is composed of three poker-chips, pasted on a background of green blotting-paper and a strip of light yellow cover-paper. The K1 filter, which calls for an exposure of one and a half times, has slightly lightened the red, green and yellow. The white chip is an ivory tint, and takes its respective value in comparison with the white of the paper labels pasted on the chips.

A small electric pocket-lamp will be useful in "picking out" highlights — notice the stem of the wine-glass in the illustration "Nectar and Ambrosia," which was made by the aid of such a lamp. With it was used a circular piece of black paper having a small hole or diaphragm, so as to confine the pencil of light to a narrow space. The lighting of your subject is entirely within your hands. By lowering or raising the subject or Welsbach light, various lighting-effects can be had. Two lights can be used, provided one can be subdued or diffused with tissue-paper, so the shadows can be dominated by the other lamp, if wanted.

Having decided on the lighting and composition of your subject, make a trial-exposure, using the exposure-data which accompany the illustrations in this article as a basis to start with. No set rule, of course, can be given by which exposure can be ascertained, as gas-mantles vary greatly. But once you get the right exposure, you have a basis to work on.

Of course, the advanced amateur needs none of the "don't's" and "do's" of this article. I am writing this for the benefit of the "comers along."

Now as to the mystery and difficulty of using panchromatic plates, there is neither, if you will but bear in mind that they are extremely sensitive to all light. Therefore, load and unload your holders in complete darkness and use a tank! That's the secret of the wonderful lamp of panchromatics!

With reasonably correct exposure you will get as good results as "Old Fiddlefocus" or "Nodal-noodle" the experts, notwithstanding their ominous warnings to the contrary.

The 4 x 5 Wratten & Wainwright Panchromatic plates are sold at 76 cents a box. The 3½ x 4½ is the smallest size in stock, although smaller sizes will be made to order, providing the purchaser takes the whole amount that the sheet of glass cuts — for instance, seven dozen in the 4½ x 6 centimeter size.

As to a developer, I have always used Duratol-Hydroquinone with excellent results. Fill a large bottle with water and place in the room in which developing is to be done; in ten hours this will attain the temperature of the room and will not vary.

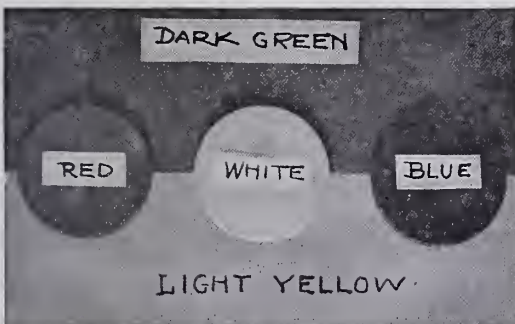
These panchromatic plates are backed, which in no way interferes with developing or fixing. Backing can be washed off after fixing and the film side gently swabbed with wet absorbent cotton.

Panchromatic photography will make you a convert. When you see the colors of your subjects recorded in their proper relations, in black and white rendering, a new world in photography opens its doors to you.

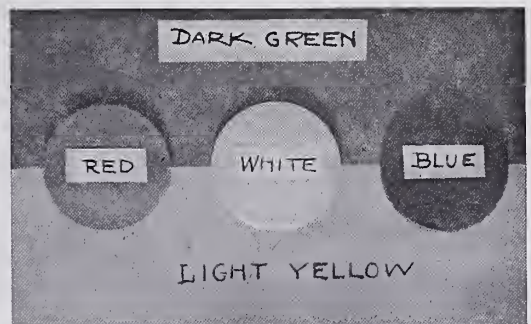
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To be faithful to one's inspiration, to the ardors of one's temperament, to the fancies of one's imagination, and, at the same time, to obey the best and the healthiest traditions of decorative art, is to give a true proof of strength in grace and of respect for oneself as well as others.

*J. Grangedor.*



PANCHROMATIC PLATE WITHOUT SCREEN



PANCHROMATIC PLATE WITH K1 FILTER





ZINNIAS  
W. R. BRADFORD



# Atmosphere



WHY is it that so many of the photographs one sees at the exhibitions and in the illustrated press are failures? They are frequently of almost perfect technical quality, the rules of composition have been most carefully observed, and yet after all they do not appeal with any striking force to the mind or the beholder.

The answer is a very simple one — they lack atmosphere. Photographers are apt to overlook this, or confine the word to its more narrow sense, whereas unless the atmosphere or spirit of the original is caught, the picture is bound to be a failure. What we want, for instance, in the picture of the wind-swept hill, is what may be called the "spirit of atmosphere" that gives the impression that the hill is wind-swept — that on looking at it we can almost feel the wind on our faces. That is atmosphere in the fullest and widest sense of the word. We were told once a story of a large snow-picture that was hung at one of the provincial exhibitions. It was said that one visitor, who happened to be a non-photographer, was so caught by the spirit of its atmosphere that after a first glance he involuntarily buttoned his overcoat. That picture was a success.

To be a success, the spirit of atmosphere must emanate from every piece of artistic work. The author, the painter, the sculptor — each endeavors in his own way to radiate the spirit of atmosphere from his finished work. They know that unless they can do this, their work is a failure. To say that a painting lacked atmosphere would condemn it at once, while ninety out of every hundred photographers fail to realize the importance of atmosphere at all, and yet it stands as the keynote to success. Composition and technique both have their parts; but the most important factor towards success is to have a firm photographic clasp on the spirit and soul of the subject; aim to make your picture breathe, and live, and lift it somehow from a photograph to a picture — there is art.

A photographic plate will in the natural order give you a negative; but whether it will give you a picture, breathing the spirit of the original, is quite another matter. Gain the whole living, breathing spirit of atmosphere in the photograph, and lift photography from a craft to the dignity of an art.

Photography is every bit as much an art as drawing or painting, and is rapidly coming to be realized as such by the general public. The number of non-photographic visitors to an exhibition

of pictorial work shows that artistic photography holds a greater interest for the art-lover than it did a few years ago, proving that it has advanced. The greatest charm of the pictorial photograph is the sense of reality it conveys; but to make a photograph into a picture it must live and breathe the very spirit of its subject.

Perhaps the greatest difficulty in attaining this ideal is the great latitude of the photographic plate as regards exposure. We are often told that, if the exposure has been reasonably correct, we shall obtain a good negative; but to obtain the fullest spirit of atmosphere we must obtain a perfect negative, and that can be obtained only by giving the exactly correct exposure, which can be found only with a meter. To obtain a technically perfect negative is half the battle; but it is one of the most difficult things that the photographer has to master. There would be far fewer failures in pictorial work if it were understood that it is not a negative that is required, but a technically perfect negative. You cannot get the true spirit of atmosphere out of an indifferent negative.

Then as regards printing, the marine or snow-picture can seldom give a good atmospheric rendering in printing-out paper. Yet how often we come across such things even from those who ought to know better. You must adapt your printing-process, even in a limited way, to the needs of your subject. Study your subject, think of the prevailing note of color in the atmosphere at the time of exposure, and print in carbon or oil-pigment of a suitable color, or use one of the color-toners. Color can never put into the picture the spirit of atmosphere if it is not there; but it may perhaps accelerate its value if it is there. Tone your sunshine in the woodland to green or sepia, according to the prevailing note of color.

Or as regards size, if a pictorial photograph is worth anything at all it is worth enlarging to 12 x 15. I do not suggest that it is possible to gain the spirit of atmosphere in this way; but, on the other hand, it may be the one thing needed. It is certain that the ordinary quarter- or half-plate print cannot be very impressive if the subject is a large one.

Lastly, as regards trimming, perhaps you have included too much in your picture, something that it seems a pity to cut off, but that is perhaps killing the beauty of the original. Your picture must tell a story as it was told to you in the first instance, when you espied the beauty and spirit of its subject. To be a success, its aim must be





THE SOUVENIR

ORRIN CHAMPLAIN

clear at a first glance. It must be simple enough in its composition to make the object of its existence plain. And it should be the spirit of its atmosphere that should hold the gaze of the on-looker. To have to find the author's ideal through a mass of superfluous detail spells failure. Trim out or subdue in a simple manner all that is not essential to the conception of that ideal.

In conclusion, try to make your pictures speak. Let them, as far as in you lies, speak of the beauties of the dying sunset or the first streaks of sunrise in notes of tender sweetness, or the fury of the storm with notes of power. Seek for beauty everywhere, and strive to make others see it when you have found it by your camera. Let your pictures radiate the spirit of their original, and success will be yours.

*The Amateur Photographer.*

## Reserve

RESERVE is an important pictorial quality. The picture which tells the whole story, leaving nothing to the imagination of the spectator, soon becomes tiresome, and, while no essential should be omitted, nothing which does not aid the effect should be included, and, so far as possible, the imagination of the observer should be stimulated. More pleasure is found in a picture as well as in a story if the spectator or reader does part of the work, and the more he does the better pleased he will be. Some aid must be given him, of course, or a blank sheet of paper would be the finest picture possible; but, other things being equal, the picture which leaves most unsaid is the best.—PAUL LEWIS ANDERSON in *Pictorial Landscape-Photography*.

## EDITORIAL

### The Value of a Photographer's Certificate

IN addressing the convention of the Photographers' Association of New England, last August, Miss Alice McClure stated, regretfully, that a certificate of membership in the national photographers' association, placed in the practitioner's display-window, does not convey the same convincing argument and assurance to the public as does the license of the Purveyor to the Court or the Hoflieferant. Secretary Hoffman, of the P. A. of A., was quick to reply. He reminded Miss McClure that at the Indianapolis Convention a code of ethics had been adopted, and that every candidate for membership in the national association would be obliged to live up to it in order to be eligible. He said nothing about purging the association of undesirable members. While this might be a dangerous experiment — in that it would appreciably diminish the membership in that august body — it is undeniably true that, with some exceptions, the association is composed of splendid men — men of character and ability. That a wave of reform marked the last national convention was evident from the manner in which the names of the candidates nominated officially were scrutinized. Several members rose to protest against the candidature of men whose reputations were declared to be not all that could be desired. As a consequence a photographer named by the nominating committee was unsuccessful against one nominated from the floor. The Code of Ethics — printed in full in PHOTO-ERA for September — has already been mentioned. Knowing that the current issues of magazines distributed at the national convention are not read on the spot — but preferably at a convenient time afterwards — the Publisher sent copies of the July issue of PHOTO-ERA to the members of the national association several weeks before the opening of the convention, which gave them an opportunity to read the Editorial, "The Office and the Man." It is probable that the suggestions it contained regarding the selection of candidates for high office had been read with some care, as was evident from the unusual interest displayed in several of the candidates for the national board.

Referring to the Code of Ethics, the October issue of the *Association News* — official organ of the Photographers' Association of America —

states frankly that a code of ethics will not amount to the paper it is written on unless it is enforced. Therefore, if we are going to make the Code of Ethics which was adopted at Indianapolis of any real benefit to the profession, it will be necessary for the Executive Boards of the future to enforce the Code to the letter.

Mr. Hoffman went further, declaring that any member of the national association who wilfully violates Article 6 of the Code of Ethics shall be subject to expulsion from the association. He also sets up the American Medical Society as an admirable example to follow in the enforcement of rules that have proved beneficial to the organization in many ways. Similarly, if the photographers' Code of Ethics is maintained by every member of the association, it means that the certificate of membership in that body will be regarded with universal respect, and accepted as a guaranty of excellence and respectability.

### What is a Photograph

DESIRING to copyright a photogravure as a photograph, a friend of the Editor was informed by the Department that this was not feasible, a photogravure not being a photograph. He now wants to know what constitutes a photograph, which, according to Webster's dictionary, is a picture or likeness obtained by photography. Therefore, one is disposed to consider a photograph any positive produced directly from the negative, and impressed upon any sensitized surface — paper, glass, wood, fabric, leather. Thus, a photograph may be a paper print, an enlargement, a glass transparency or a lantern-slide. Naturally and emphatically, a daguerreotype, an ambrotype, a ferrotype or an autochrome is a photograph. The positive film, when transferred from its glass, film or paper support to a new base — a watch-case or a piece of china — is still a photograph. On the other hand, a reproduction of a photograph by a mechanical process, such as photogravure, photo-engraving, rotogravure, collotype, photo-lithography, is not a photograph. Sometimes faithful monochrome facsimiles are called photographs by courtesy; but such a designation is not legitimate. As to manipulated positives on paper — gum, bromoil or oil-prints — they cannot properly be classed as photographs; yet certain physicists include the radiograph, because it is obtained through the agency of the sensitized photographic plate.



# PHOTO-ERA MONTHLY COMPETITION

*For Advanced Photographers*

Closing the last day of every month. Address all prints to PHOTO-ERA, Monthly Competition,  
383 Boylston Street, Boston, U. S. A.

## Prizes

*First Prize:* Value \$10.00.

*Second Prize:* Value \$5.00.

*Third Prize:* Value \$2.50.

*Honorable Mention:* Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books. If preferred, the winner of a first prize may have a solid silver cup, of artistic design, suitably engraved.

## Rules

1. This competition is free and open to any camerist desiring to enter.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data.*

4. *Each print entered must bear the maker's name, address, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what competition it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit in each case being given to the maker.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of *stiff* corrugated board, not the flexible kind, or with thin wood-vencer. Large packages may be sent by express very cheaply and with indemnity against loss.

7. The prints winning prizes or Honorable Mention in the twelve successive competitions of every year constitute a circulating collection which will be sent for public exhibition to camera-clubs, art-clubs and educational institutions throughout the country. The only charge is prepayment of expressage to the next destination on the route-list. This collection is every year of rare beauty and exceptional educational value. Persons interested to have one of these PHOTO-ERA prize-collections shown in their home-city will please communicate with the Editor of PHOTO-ERA.

## Awards — Clouds in Landscape

Closed September 30, 1915

*First Prize:* Claus Bogel.

*Second Prize:* H. A. Morton.

*Third Prize:* Harry A. Brodine.

*Honorable Mention:* W. Adams, V. Akers, Mabel Heist Bickle, J. W. Caum, William S. Davis, Edward C. Day, J. H. Field, Alice F. Foster, Florence Baker Grey, Kenneth Hartley, F. W. Hill, Henry Walter Jones, A. B. Klugh, B. F. Langland, H. C. Mann, H. R. Neeson, Harry G. Phister, Charles F. Rice, Edwin A. Roberts, Ernest W. Sprague, Dr. F. F. Sornberger, Elliott Hughes Wendell, Alice Willis, Lysander E. Wright.

Special commendation is due the following workers for meritorious prints: Fred C. Babcock, G. M. Bibby, R. A. Buchanan, Lawrence C. Byck, C. M. Campbell, Albert C. Ferry, S. H. Gottscho, Pollux Hein, W. Clark Hill, A. M. Holcomb, D. Edw. Jones, Taizo Kato, Hannah Knight, I. Kuwahara, Wm. Ludlum, Jr., J. Martin, Paul H. Means, Robert B. Montgomery, Alexander Murray, C. E. Pittman, Herbert F. Porter, Dr. Geo. C. Poundstone, Harold M. Sawyer, F. C. Schmelz, John Schork, Kenneth D. Smith, Chas. M. Stotz, G. S. Tagaya, M. E. Taylor, Anson M. Titus.

## Subjects for Competition

"Vacation-Pictures." Closes November 30.

"Winter Street-Scenes." Closes December 31.

"Night-Pictures." Closes January 31.

"American Scenic Beauties." Closes February 29.

"Home-Portraits." Closes March 31.

"Subject for PHOTO-ERA Cover." Closes April 30.

"Miscellaneous." Closes May 31.



Photo-Era Prize-Cup

IN deference to the wishes of prize-winners, the publisher will give them the choice of photographic supplies to the full amount of the prize (\$10.00), or a solid silver cup of artistic and original design, suitably inscribed, as shown in the accompanying illustration.

## Night-Pictures — Photo-Era Competition

### Closes January 31, 1916

THERE is a mystery and charm about many scenes when viewed by night- or evening-light which is entirely lacking when the same view is seen in broad daylight. The most prosaic material may be transformed by the alchemy of the subdued light and masses of shadow into a thing of beauty and a joy — until sunrise. It is not entirely easy to analyze this charm and tell wherein the difference lies. When the illumination is from the moon it is probable that the difference is chiefly in the strength of the light. Moonlight is not sufficiently strong to bring out the defects and the obtrusive detail that broad sunlight reveals all too plainly. When the light is artificial, however, from a nearby electric- or gas-light, for instance, the direction of the light and its nearness are responsible for the changed appearance, strong shadows adding much to the effect. Some old shed or unqualifiedly ugly building may, by night-illumination, prove a soft and luminous background for the delicate tracery of drooping branch or graceful flower-stalk. The city-street, gay with its many lights, is another attractive night-subject, especially after a rain, when the pavement is wet and gives back wavering reflections of the lights.

When snow is on the ground, especially after a storm, when the trees are loaded down with fleecy whiteness, the village-street is a thing of beauty under the strong light of the street-lamps. If a light must be included in the view, get it behind a tree-trunk or some solid object that will prevent the strongest rays from striking the lens. When the ground is completely snow-covered, the exposure may be much shortened, as the snow reflects so much light into the shadows. If a figure can be introduced, it adds life and interest to the picture; but do not allow the subject to show interest in the camera, and a back view may often be preferable to a front one. One youngster drawing another on a sled, and laughing back at him, would be fine if exposure can be sufficiently shortened. A fast plate and large aperture should be used, and a double-coated plate or a backed one will materially lessen halation from any lights that may be included in the picture. It may be possible to select a street-corner where a brightly lighted show-window will induce pedestrians to linger long enough for you to catch them on your plate.

But great as may be the fascination of the city and town, and satisfying though it may be to overcome the technical difficulties of work after dark and against the flare of artificial light, the real charm and poetry and mystery of the night are to be found far from the clang of the trolley-car and the blaze of lights on the Great

White Way. Out in the open are the silvery sheen on snow-covered hills under the moon, or the rushing waters of the river, inky black between its white banks, or liquid silver where the moon strikes her path across it. Here are subjects worthy one's best efforts.

It may be that the moon, herself, smiles most enticingly and seems to invite one's lens; but trust her not — she's fooling thee! If the moon is included in the picture, she will prove as fickle and inconstant as in the days of fair Juliet, for she reckons not of long exposures, and calmly pursues her pathway up the sky, leaving her elongated image on the plate like an abnormally large comet — all tail. It may be possible to capture her by subterfuge, nevertheless, and it might be done after this fashion: Compose your picture to include the moon near the top of the plate — make a short exposure for the moon, and then wait until she

has moved out of the field of view and complete the exposure. The direction of the shadows will be so nearly right as hardly to be noticed.

It may be rank photographic heresy, but it is nevertheless true, to assert that many of the best night-effects have been produced by daylight. Working at night, exposures are long, and the results often need labeling as night-pictures to distinguish them from poor daylight-work. The beauty and the charm are there, but it is not easy to carry them home on one's plates. It is, however, possible to study one's subject under the glamour of moonlight and see just what must be brought out and what subdued to give the impression of the scene as it appears under those conditions.

Having determined this, come by daylight, when the sun has taken the place of the moon, and try to procure your effect. Exposure should be short, and one should

develop for a thin plate, having good contrast but little detail in the shadows. For best results, this sort of subject should be taken against the light and printed quite deeply. The strong shadows falling toward one, with the near side of things in shadow, help to carry out the illusion of moonlight. The best time of day is at sunrise or sunset. The clouds are apt to be good at these times, and the longer the shadows the better. When the view is across water, a very pretty effect is obtained when a cloud covers the sun for a moment, showing its "silver-lining."

Depth of printing and a suitable medium are essentials to the successful carrying out of the illusion. A faked moon is sometimes introduced — but it must be done most carefully and judiciously to be anything but ludicrous. A common mistake is to make the moon too large and too sharp in outline.

If exposures are to be made at night, it will be found a bit difficult to obtain a sharp focus, unless it should



UNDER THE STREET-LIGHT

PHIL M. RILEY





HONORABLE-MENTION PRINTS — CLOUDS IN LANDSCAPE

Left to right: "A Cloudscape," H. R. Necson; "Clouds Above the Orchard," B. F. Langland; "A Dream of Silence and of Peace," H. C. Mann; "The Gentle Morning Comes Apace," Edwin A. Roberts; "An Adirondack Retreat," Harry G. Phister; "Gothic Spires," Alice Willis.



THE LONE TREE

CLAUS BOGEL

FIRST PRIZE — CLOUDS IN LANDSCAPE

be a view including some source of light. For this reason a smaller stop must often be used than would otherwise be required, as this gives greater depth of focus and compensates for any error. Exposures will vary so greatly that no general rule can be given. Where a subject is nearly in one plane, like the façade of a building in good light, the time might not exceed four or five minutes with a quick lens and plate. In winter this might be cut in half, the snow will so lighten the shadows. On the other hand, a view that includes heavy shadows and is more dimly lighted may require twenty minutes to half an hour. No effort should be made, however, to obtain detail in deep shadows where the eye sees none. Have a definite picture in your mind of the scene as it appears to the eye, and do not attempt to reproduce more than that on your plate.

Do not be deceived in development by the unusual appearance of the negative. The greater part of the picture will be shadow and the lights occupy a relatively small proportion. The sky — the first thing to appear on a daylight-negative, and the strongest light — is here almost lost in the shadows, and the lights occupy a small area nearer the middle of the plate. The ideal plate should be thin and not too contrasty, for if your lights are dense you will get an opaque, inky quality in the shadows while striving to print the detail in the highlights. Never mind if part of the plate seems only clear glass; if your lights are delicate and easily penetrated, the resulting print should be realistic.

Flashlight is usually associated with indoor-work, but in certain instances it may be called upon for outside assistance. Such charming pictures as one sees about a camp-fire! The play of the firelight on the faces about it is worthy of study. An easy way to catch something of its glamour on the film is to have some member of the party sit with his back to the camera, and, between the lens and the fire, toss into the blaze a little powdered magnesium twisted in a bit of tissue-paper. This method may be employed to take children about a bonfire, or young people at a corn-roast.

Many fascinating things will present themselves once one begins to realize that one's camera need not be put away when the sun goes to rest. The thunder-storm, even, has possibilities at night, for the lightning is very accommodating and will take its own picture if the camera is put at its disposal. Simply point the lens toward that direction where flashes are most frequent, open the shutter and leave the camera there until a flash occurs; then close the lens. This applies only to chain-lightning. Sheet-lightning would fog the plate.

Teach your camera to work after dark, then, and a new and interesting field is open to you. No better exemplification of the artistic and technical possibilities of night-photography comes to my mind than the article "The Adventure of a Winter-Night," by Phil M. Riley, which, with several admirable illustrations, was published in PHOTO-ERA for January, 1913.

KATHERINE BINGHAM.



# THE CRUCIBLE

A MONTHLY DIGEST OF PRACTICAL FACTS FOR PHOTOGRAPHIC WORKERS

*With Reviews of Foreign Magazines, Progress and Investigation*

Edited by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department  
Address all such communications to The Crucible, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A.

## Light-Source, Exposure and Development in Enlarging

THROUGH lack of knowledge or neglect of certain general laws we are apt to defeat our purposes, and however much we may try our efforts are without avail unless we observe with reasonable care the laws which govern our operations. Physical laws are not really limitation, but rather give us assurance of a solid foundation to base a set of principles upon which we may safely rely for repeated success once the principles are understood. The common error among workers is to consider all light-sources as merely volumes of light differing only in visual luminosity.

Only recently a man of extensive experience in the practice of photography actually advanced the opinion that it made no difference whatever whether an enlargement was made with an arc-lamp, an incandescent electric bulb or a Welsbach gas-burner, provided the exposure was correct in each instance. Of course, this seems plausible on its face, but as a matter of fact there is a very great difference in the result—a difference it were well all workers should recognize and prove for themselves by actual experiment.

We will not, at this time, enter into a discussion of the physical properties of the different light-sources available for enlarging-purposes, except to state that light varies in composition, some being rich in blue rays; in others the yellow rays predominate. There are combinations of varying proportions, and these differences in the composition of light have a corresponding influence on the enlarged print.

A moment's reflection will convince us that it is reasonable that this should be so, for we are aware that different kinds of plate-emulsions are purposely made sensitive to different kinds of light-rays, and these differences are apparent in the gradations of the negative, and in the rendering of color-values. We cannot, of course, draw a parallel example between a plate-emulsion and a developing-paper, and it may appear that the rule does not apply, since when enlarging from a negative there are no colors to consider. On the other hand, we are all familiar with the various dodges employed in printing-processes, such as printing through blue or yellow glasses, or in bright sunshine or shade to obtain different degrees of softness or contrast. This is nothing less than altering the quality of light which is permitted to reach the sensitive printing-paper.

Chloride of silver, the basis for nearly all developing-papers, is happily sensitive to only a very small portion of the spectrum. We are thus able to handle the chloride emulsion in a good volume of light, if we trap or screen out that small portion to which the emulsion is sensitive.

Similarly, if we employ such an emulsion for enlarging, and our source of light is weak in the rays to which

the emulsion is sensitive, a comparatively long exposure is necessary. Aside from the physical effect of such light on the sensitive surface, a prolonged exposure tends to softness or lack of normal contrast. It is not unusual to find those who employ carbon or tungsten or Welsbach gas-lamps for enlarging complaining of lack of brilliancy in their prints, whereas from the same negatives and the same manipulation perfect prints would be obtained when an arc-lamp is used as the light-source.

But what shall we do for those who have no arc-lamp? How are we to help them compete with their neighbor's better equipment?

There are two ways of getting the best out of tungsten, Welsbach or other weak form of illuminant. The first requisite is to make a thin but brilliant negative having good contrasts, but without sacrifice of shadow-detail. Above all, too dense a negative should be avoided, and if necessary the density should be cut with a suitable reducer.

Making the negative suitable is first of all the best remedy. There are times when this cannot be done, as in the case of flat overexposed negatives. Reduction and subsequent intensification of such negatives is not usually successful. In this event a modification of either the developing-formula or the time of development is necessary.

Shortening the exposure of the enlargement and prolonging the development will produce increased brilliancy. A little salt added to the developer helps. Reducing the amount of bromide of potash and giving the minimum of exposure with longer development will also increase the brilliancy of the print.

When, however, we resort to these modifications in the developer, or in the time of development, we find it difficult to secure warm enough sepia tones by the hypo-alum method. The print does not have the necessary olive tone to begin with, and a cold unlovely sepia-print is the result.

Nevertheless, instead of using a hypo-bath for the sepia tones, such prints are very successfully toned by the bleach-out and redevelopment method, in which case very rich beautiful sepias are obtained.

There is always a best way to accomplish our purpose. Different conditions require changes in manipulation, but we should always be mindful of this: That any variation from established usage in one operation may also require changes in other operations to meet the physical alterations brought about by reason of the first variation.

Applying this principle we are able to change our method to suit conditions without sacrifice of quality.

The example in the previous paragraph is a clear illustration. The blue-black print gives us the best gradation from a particular negative. It was necessary to give the minimum exposure with rather long development. No other method yields a print of such quality under these particular conditions, yet we wish



PORTLAND HEAD LIGHT

H. A. MORTON

SECOND PRIZE — CLOUDS IN LANDSCAPE

to tone it sepia. Our usual method is hypo-alum, but this does not produce the desired tone.

We have created a different physical state in our silver-deposit, and this condition requires a compensating change in subsequent operations. We know from experience that such a print tones best by the redevelopment-method and, understanding the principle, we apply it to the best advantage.—*Portrait*.

### Using the Same Developer a Second Time

THE appreciable rise in the price of photographic chemicals has stimulated many amateurs to keep an eye open for opportunities of practising useful economies. One of the many questions that has cropped up frequently is the possibility or advisability of using the same lot of developer a second time; i.e., making the quantity of developer one generally uses for one plate serve for a second plate.

Certainly it is possible. Whether it is advisable raises many points of interest; e.g., will it give the same character of negative in both cases; will it give fully as much shadow-detail; does the same time-factor apply in both uses? To these and many other similar questions wholesale answers are not possible, or perhaps not reliable or practical.

In this connection I may record two of several experiments made for similar purposes. A quarter-plate was cut into two equal parts, A and B. Portion A was given what was regarded as the desirable maximum, and portion B the working-minimum, exposure. The subject chosen was a window-pane of ground-glass,

outside which a jasmine plant had grown some branches which afforded some pleasantly arranged cast shadows. The following were the assigned exposures: A, F/11, half a second; B, F/22, half a second. Thus the exposures were as 4 to 1.

The developer employed was an ordinary pyro-soda mixture, without bromide, containing  $1\frac{1}{2}$  grains of pyro and 22 grains of sodium carbonate (crystals) per ounce developer. In the case of A the image began to appear in twenty-five seconds, and development was continued for five minutes; i.e., factor 12. One ounce of mixed developer was used for the half quarter-plate. The second portion of the plate, B, was then developed with the same lot of developer after an interval of about five minutes. In this case the image did not appear till just upon one minute. Development was, as before, limited to five minutes. The prints were fully exposed and fully developed. The two negatives look vastly different in the hand. The plate was very old, and both parts are somewhat generally fogged; but this shows most in portion A. Measuring the densest part on a Sanger-Shepherd density-meter, A reads 16 and B, 14. The equivalent exposures are as 3 to 2.

Now it is clear that after a certain lot of developer has been used to develop a plate, its chemical composition cannot be the same at the finish as it was at the start. Something has been put out of action, something else has been added to it. The astute reader will have noticed that in portion A (fresh developer) the quite ordinary pyro-soda-without-bromide factor 12 was used, while for portion B the pyro-soda-with-bromide factor 5 was used, which, it so happened, pointed to





SEPTEMBER

HARRY A. BRODINE

five minutes for total time in each case. One may take it that development is accompanied by the liberation of bromine from the film, and that it is absorbed more or less by the developer.

The resulting prints are vastly different as regards the cast shadows on the ground-glass window. True, one plate had four times the exposure of the other; but it is not easy to believe that the difference of the two plates is due entirely to exposure.

This experiment, taken by itself, is not, of course, conclusive, as we have two factors at work; viz., different exposure and consecutive development. I incline to think that both factors contribute their share in the differing results. Had the longer exposure, A, been developed second, and not first, I think the two plates and prints would have shown less difference. There has long been a saying among practical workers that a previously used developer is good for developing over-exposures. The two prints are not so different as one might well expect, judging by the appearance of the negatives in the hands.—*The Amateur Photographer*.

✍

Don't try to say two things in one picture.

*Birge Harrison.*

### The Speed of Bromide Paper

SEVERAL queries have reached us of late regarding the approximate relative speeds of bromide paper and plates and films of average rapidity. Perhaps it may interest other workers to know that the Research Laboratory of the Eastman Kodak Company advises that Eastman Permanent Bromide Paper requires approximately twenty-five times the exposure of Kodak N. C. Film or plates of corresponding emulsion.

### Ink for Writing on Glass

An ink which can be used for writing on bottles, etc., in place of paper-labels, and for naming microscope slides, lantern-slides and similar purposes, is made by dissolving two hundred grains of shellac in three ounces of methylated spirit. Solution is complete in a few days, and the liquid is then strained through muslin, and has added to it three-quarters of an ounce of borax which has been dissolved in six ounces of hot water and allowed to cool. The pigment preferred for the ink is mixed with this borax solution, which is added to the shellac solution little by little, the latter being contained in a large bottle and well shaken after each addition.

# THE ROUND ROBIN GUILD MONTHLY COMPETITION

*For Beginners Only*

Closing the last day of every month. Address all prints to PHOTO-ERA, Round Robin Guild Competition, 383 Boylston Street, Boston, U. S. A.

## Restrictions

ALL Guild members are eligible in these competitions provided they never have received a prize from PHOTO-ERA other than in the Beginners' Class. Any one who has received only Honorable Mention in the PHOTO-ERA Monthly Competition for advanced workers still remains eligible in the Round Robin Guild Monthly Competition for beginners; but upon winning a prize in the Advanced Class, one cannot again participate in the Beginners' Class. Of course, beginners are at liberty to enter the Advanced Class whenever they so desire.

## Prizes

*First Prize:* Value \$5.00; *Second Prize,* Value \$2.50; *Third Prize:* Value \$1.50; *Honorable Mention:* Those whose work is worthy will be given Honorable Mention.

A certificate of award, printed on parchment paper, will be sent on request.

**Subject** for each contest is "General"; but only original prints are desired.

Prizes may be chosen by the winner, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA, or in books.

## Rules

1. These competitions are free and open to all members of the Round Robin Guild. Membership is free to all subscribers; also to regular purchasers of PHOTO-ERA on receipt of their name and address, for registration, and that of their dealer.

2. As many prints as desired, in any medium except blue-print, may be entered, but they must represent the unaided work of the competitor from start to finish, and must be artistically mounted. Sepia-prints on rough paper are not suitable for reproduction, and such should be accompanied by smooth prints on P. O. P. or black-and-white paper having the same gradations and detail.

3. *Unsuccessful prints will not be returned unless return-postage at the rate of one cent for each two ounces or fraction is sent with the data. Criticism on request.*

4. *Each print entered must bear the maker's name, address, Guild-number, the title of the picture and the name and month of the competition, and should be accompanied by a letter, SENT SEPARATELY, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks will be sent upon request. Be sure to state on the back of every print exactly for what contest it is intended.*

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA, unless otherwise requested by the contestant. If suitable, they will be published in PHOTO-ERA, full credit being given.

6. Competitors are requested not to send enlargements greater in size than 8 x 10 or mounts larger than 12 x 15, unless they are packed with double thicknesses of stiff corrugated board, not the flexible kind, or with thin wood-veneer. Large packages may be sent by express very cheaply and with indemnity against loss.

## Awards — Beginners' Contest Closed September 30, 1915

*First Prize:* Myra D. Scales.

*Second Prize:* M. C. Still.

*Third Prize:* D. Vincent Smith.

*Honorable Mention:* Lawrence C. Byck, Maude Lee Eldridge, Harry Prest, Wm. A. Ray, H. B. Rudolph, Martinique M. Saucier, C. Howard Schotofor, Fred W. Sills, W. Stelcik, G. S. Tagaya, Dick Treweeke, C. V. V. Turner, A. J. Weis, Wm. J. Wilson, J. H. Woodhead, Elizabeth B. Wotkyns.

Special commendation is due the following workers for meritorious prints: G. F. Alrich, Margaret Anderson, Wm. Bradford, V. L. Guidette, Louis R. Murray, John J. Neuer, Louise A. Patzke, Mrs. H. G. Reed, Chas. M. Stotz, Edward Wichers.

## Why Every Beginner Should Compete

THE trouble with most competitions is that they place the beginner at a disadvantage. If advanced workers be allowed to compete, beginners have little chance to win prizes and so quickly lose interest after a few trials.

There are two monthly competitions in which prints may be entered with prizes commensurate with the value of the subjects likely to be entered. They are: The Round Robin Guild Competition and the PHOTO-ERA Competition. The former is the better one for a beginner to enter first, though he may, whenever it pleases him, participate in the latter. After having won a few prizes in the Beginners' Class it is time to enter prints in the PHOTO-ERA Competition for advanced workers.

As soon as one has been awarded a prize in the PHOTO-ERA Competition, he may consider himself an advanced worker, so far as PHOTO-ERA records are concerned, and after that time, naturally, he will not care to be announced as the winner of a prize in the Beginners' Class, but will prefer always to compete in the PHOTO-ERA Competition for advanced workers. In accordance with this natural impulse, it has been made a rule by the publisher that prize-winners in the Advanced Class may not compete in the Beginners' Class.

To measure skill with other beginners tends to maintain interest in the competition every month. Competent judges select the prize-winning prints, and if one does not find his among them there is a good reason. Sending a print which failed to the Guild Editor for criticism will disclose what it was, and if the error be technical rather than artistic, a request to the Guild Editor for suggestions how to avoid the trouble will bring forth expert information. The Round Robin Guild Departments form an endless chain of advice and assistance; it remains only for its members to connect the links. To compete with others puts any one on his mettle to achieve the best that is in him, and if, in competing, he will study carefully the characteristics of prize-winning prints every month, and use the Guild correspondence privilege freely, he cannot help but progress.





# THE ROUND ROBIN GUILD

*An Association of Beginners in Photography*

Conducted by KATHERINE BINGHAM

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This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free to subscribers and regular purchasers of the magazine sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston, U. S. A.

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## The Darkroom

MOST beginners in photography are handicapped by the inconvenient accommodations for doing the work. The usual amateur "finishing-room" is the bath-room, and the protests of the housekeeper are hardly to be wondered at, for the chemicals are almost bound to be rather "messy" and productive of stains. If one is to go on with the work — and who that has put his hand to the photographic plow can imagine himself "looking back" — why not fit up a suitable and permanent place for doing it?

The location of the room must be governed by the accommodations of each individual householder, but there are possibilities in the cellar, the attic and the clothes-closet. Running water is the first consideration, and the situation must be determined with that in view. If the cellar is a dry one it is not a bad location, and will usually provide a corner that can be partitioned off without difficulty. It has this advantage, that in case of accident an overflow of water will cause no damage to ceilings beneath.

The partition should be of tight-fitting sheathing and made light-tight at top and bottom. If there is any danger of leakage, cover the outside with heavy building-paper. If there is room, a labyrinth-entrance has great advantages over a door, permitting one to pass in and out when sensitive material is open to the light without the necessity of careful covering up. It also admits air and heat, and makes a long stay within less disagreeable. This entrance requires about four feet extra length. A two-foot entrance should be left at one side, then four feet or more from that end another partition is run with an entrance in the same location. Half way between these two run another partition, with an entrance on the opposite side. The width of the room should be great enough to allow these partitions sufficient lap to cut out all light.

A convenient sink-arrangement is easily made and serves as a print-washer. It is merely a large wooden tray divided into two parts and lined with zinc. The division should not reach quite to the top, and should have a V-shaped cut in the top near one end. If possible it is very convenient to have two faucets and two outlets, one for each side, then either one can be used independently. The outlets may be merely a round hole the size of the outlet-pipe. Have a piece of lead pipe fitted to stand in one of the outlets and reach not quite to the top of the sink. A piece of wire-netting standing above the top will prevent prints washing over it. A piece of rubber hose fitted over one of the faucets and reaching to within a quarter of an inch of the bottom of the sink, and a cork to fit the outlet, complete the arrangement. If both sides are to be used for washing prints, place the cork in the side where the rubber hose is attached and the little pipe in the

other side. Turn on the water with just enough force to keep the prints moving and keep them from the bottom. The water will flow through the V-shaped cut in the partition into the other half and fill that side to the top of the pipe and flow out at that point. Of course, the prints in the second side will need a little longer washing.

A darkroom need not be large to be convenient. In fact, a small room, where everything is within easy reach, is better than too much space. Plenty of shelf-room is a great need, and if one can requisition an old chest of drawers it will prove most useful in storing things to be kept from the light. A broad shelf at good working-height should run around the entire room, and narrower shelves at convenient height above. Over the sink very narrow shelves may be used, just wide enough to hold one row of bottles. The developing-light should be over the sink, and a rack made to fit the sink so that developing may be done there and the shelves saved from staining developers. The printing-light for gaslight papers may be very conveniently arranged on the bottom of a shelf so that printing-frames may be laid on the broad shelf to print and the distance be always the same. This is a convenient position if any shading or faking is to be done. Be sure your shelf is high enough so that the light will cover evenly the largest size of plate you will be likely to wish to print from. If you wish to shorten the distance for smaller sizes, they may be placed on boxes of different height to suit the exigencies of the occasion. A good form of light for this use is the so-called "turnip" light. It has a reflector in the top of the globe, and the bottom is ground-glass, so that no bright lines of light will bother you.

For the red light a box may be constructed with the bulb — preferably a red glass one — at the back and a framework door closing the front of the box, having orange and red fabric over the opening. If the bulb is red the door can be left open when work is being done that does not demand so dull a light. Be sure, however, that your red globe does not have a point of glass on the bottom that allows the passage of white light. A considerable area of light is allowable if it be a safe one, and the walls of the room and the trays need not be black. If your light is safe any reflection of it of course will be also.

If the room is so situated that a window is possible it will be very greatly appreciated as a means of ventilation as well as a source of light. A perfectly dark shutter will of course be needed, also a clear glass window and one of red glass. The window should be small, and an easy way to operate the many shutters is to have them pull up by means of pulleys and cords. You will find that many ideas for conveniences will occur to you once you begin to use the room, and you will wonder how you ever got on without it.



"I CHATTER OVER STONY WAYS"

MYRA D. SCALES

### Copying

SOMETIMES the amateur has occasion to copy a print or document and finds himself very much at a loss as to the method of procedure. His greatest difficulty will be in getting the image of a proper size, but there are in the market, at low prices, various supplementary lenses of the nature of the well-known portrait-attachment which may be slipped on over the front of the regular lens and give a greatly increased size of image without great bellows-extension.

A flat surface such as an ordinary kitchen-table will answer for a support for camera and easel. The latter can be, in its simplest form, any firm, smooth, wooden box. The camera should be placed on another box to bring it about opposite the center of the one to be used as an easel. Fasten the print to be copied firmly to the box by means of thumb-tacks, being sure that it lies smooth. The camera on its box is then so placed as to make the copy the right size when the image is in focus. This will take some adjusting, and care must be taken to have camera and easel exactly parallel. The table should be so placed that the print receives the light from directly in front, and if it gets a cross-light, reflectors should be used on the opposite side to counteract it, or the grain of the paper will be too apparent.

To make a copy the same size as the original the distance from lens to plate and from lens to object should be the same. It is wise to use a rather slow plate and give full exposure, unless the print lacks contrast, when a short exposure and full development will sometimes improve on the original. Such treatment is, however, likely to produce grain.

Of course, if one is intending to do much of the work, the matter of adjustment is greatly simplified by having strips of wood fastened to the table in such a manner as to form a track in which camera-support and easel

may slide, so keeping them always in register. The camera can be fastened to its support by means of a tripod-screw.

Illustrations in books may be copied in this manner by opening them at the page to be copied and fastening that part up against the easel by means of clips or rubber bands, the rest of the book lying flat on the table. A little experience will give you proper exposure, which, of course, varies with the light, lens, plate, etc. From five seconds up to as many minutes may be required.

### The Quantity of Developer

Too little developer leads to difficulties in the way of getting the plates or films evenly and quickly covered with the solution, to say nothing of an actual inability to get the full density when only a very small quantity of a very weak solution is present. On the other hand, it must not be forgotten that an unnecessarily large quantity of a powerful developer is actively injurious. An important part in the working of a developer is played by the soluble bromide which is formed in the solution by the action of the developer upon the emulsion, and, if there is so much developer present and of an energetic kind so that this bromide is diluted too freely, it is perfectly possible that the negatives produced may be fogged, although with a less quantity of solution they might have kept perfectly clean. The action of the bromide which is formed is well shown by placing an unexposed plate in the usual developer and developing it for the usual time. It will be found to be much foggier than exposed plates developed in the same way, the explanation being that as no image is developed on the unexposed plate no bromide is liberated, and so the full strength of the solution is acting upon the plate for the full time.—*Photography and Focus*.



## Answers to Correspondents

*Subscribers and regular readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.*

**H. S.**— There is no practical method of making photographs direct on paper in the camera, provided you mean positives. Of course rapid bromide paper, which has an emulsion virtually like that of a slow dryplate, may be exposed in the place of a plate or film in the camera, but this yields a negative upon development. This can be transformed to a positive by reversal, but it is a bothersome process, and good results are not always assured. Also the image would then be reversed left for right. Of course the paper negative could be rendered transparent, and printed from like a glass or film negative.

**E. J. G.**— An **aplanatic lens**, or **aplanat**, is a lens sufficiently well corrected for chromatic and spherical aberrations to define well at a large aperture. The name is now usually applied to lenses of the rapid rectilinear type, although a special lens called a "rapid aplanat" (F/6.5) was introduced by Steinheil in 1893. This somewhat resembled the antiplanat of the same maker in having a positive front- and negative back-lens, but consisted of five glasses.

**Astigmatism** is a defect in a lens by which it is prevented from rendering vertical and horizontal lines with equal degrees of sharpness. It is more noticeable towards the edges of the field, the center being quite free of it. A **stigmatic lens** is a lens free of astigmatism. In addition, it is free of chromatic and spherical aberration.

**W. M. K.**— The **grain of negatives**, a problem which sometimes confronts the user of small cameras, like yourself, in his attempts to print by enlargement, was taken up at some length by a feature article in PHOTO-ERA for April, 1915, by E. J. Wall, F.R.P.S. He suggests the use of emulsions of medium speed, a rapid rather than a slow tank-developer and placing the negative to be enlarged in contact with opal glass, so as to reduce the scatter of light produced by the silver particles.

**C. B.**— The **circular unglazed spots on your print**, which is a glossy one, are due to unexpelled air-bubbles between print and ferrotype plate when squeegeeing it. They can be prevented by rolling the back of the print firmly and thoroughly; also the ferrotype plate should be flat and clean.

**H. A. S.**— **Pinatype Tablets** may be obtained from Farbwerke Hoechst Co., New York City.

**M. R. R.**— **Enlargements may be made directly upon canvas** for the use of artists, either for finishing direct or as a basis for oil-colors. The canvas must first be cleaned with a mixture of 1 ounce of liquor ammoniae (.880) and 4 ounces of methylated spirit, this being rubbed on with a clean rag or sponge until all greasiness is removed. Three solutions will then be required for sizing, sensitizing and developing.

### SIZING

Distilled water .....	10 ounces
Ammonium bromide .....	35 grains
Ammonium chloride .....	10 grains
Potassium iodide .....	80 grains
Gelatine .....	60 grains
Dry albumen .....	1 ounce

Mix and warm the mixture until the gelatine is dissolved, but avoid overheating or the albumen will be coagulated.

### SENSITIZING

Distilled water .....	6 ounces
Glacial acetic acid .....	$\frac{1}{4}$ ounce
Silver nitrate .....	$\frac{1}{2}$ ounce

Mix and filter.

### DEVELOPING

Distilled water .....	5 ounces
Lead acetate .....	5 ounces
Gallic acid .....	30 grains

The cleaned canvas is sponged over with the sizing-mixture as evenly as possible. When dry it is ready for sensitizing. Take the canvas into a darkroom, pour over it some of the silver sensitizing-mixture and spread evenly with a pad of absorbent cotton. Wet or dry, it is ready for exposing in the same way as bromide paper, but it is slower than most bromide papers. The developer is applied with the sponge previously used for sensitizing, the residue of silver assisting development. The canvas is finally fixed in a bath of hypo, 1 ounce of the salt to each 5 ounces of water, and then thoroughly washed. During all these processes the canvas may remain on its stretcher.



THE LURE OF THE WATERFALL

SECOND PRIZE — BEGINNERS' CONTEST

M. C. STILL

## Print-Criticism

*Address all prints for criticism, enclosing return-postage at the rate of one cent for each two ounces or fraction thereof, to Guild Editor, PHOTO-ERA, 383 Boylston Street, Boston, U. S. A. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop used, exposure, developer and printing-process.*

L. A. P.—Try a Rexo Normal instead of Hard paper on your photograph of a stag, and you will like the result much better.

—S. S., JR.—Of your several prints "An Old New England Homestead" is decidedly the best; the viewpoint is good and the picture well spaced, also the sky is to be commended. Several of your other subjects indicate overdevelopment, with consequent chalky highlights. You will find, however, that the use of softer-working papers will mitigate this defect to quite an extent.

A. J. W.—Your photograph of a painter at his easel might be worked up into an attractive subject by enlargement on a softer-working paper and by trimming off the straight tree-trunk at the right. Possibly it may be necessary, also, to lower somewhat the tone of the stones along the bank of the stream.

A. J. V.—Underexposure and overdevelopment are the faults in the "Willow" and "Lake-View." The negative of "Snow and Shadows" is apparently too thin or too flat; perhaps both.

G. E. O.—You have an attractive little photograph in "Kenneth," but it should be so trimmed as to leave a slight space above the head.

S. A. C.—"Morning" is an interesting subject; but a little more light on the shadow-side, with consequent detail, would have improved it. Also, the background is somewhat too light, and particularly the papers on the desk, evidently due to much too intense a light on that side.

P. S. P.—If the print for which we awarded Honorable Mention is your first attempt at home-portraiture, you are certainly to be congratulated, for it challenges the work of many professional artists. The lighting, the flesh-tones, and in general the pose of the figure as well as the chemical effect of the negative, are excellent. There are three minor criticisms we would offer, none of which seriously mars the pleasing effect of the work as a whole.

What appears to be a black hair-ribbon makes an irregular spot which adds nothing to the picture, yet breaks the line of the shoulder and attracts attention to itself in the attempt to decide what it is. The arms seem uncompromisingly straight, although the left arm probably appears so because of the angle at which it is seen. Then, too, the trimming of the print, which we believe is in rather too narrow an oval, and so crowded in the space, is such that the edge of the print takes almost the same line as the arm, and emphasizes the parallelism. Had the left hand been drawn backward slightly there would have been more ease of pose and flow of line.

E. R.—Of the prints we are returning to you "The Hudson River from Tarrytown" is in many ways the most attractive; but why not have the distant water-line level, and also why not have the vertical lines of "The Huguenot House" plumb? Both defects can be remedied by trimming. The latter subject has been considerably undertimed, and perhaps a softer-working paper will give more detailful and at least lighter shadows.

M. E. L.—Your picture, "The Young Virtuoso," is what some would call "a cute picture." The little boy is holding the violin—or is it a viola?—by the neck, letting the instrument hang, as it is too heavy for him to hold in any other way. He holds the bow across the strings, but he is not actually playing. He appears quite incapable to do so. The picture is not convincing, nor has it any artistic value, being a hasty snapshot. The background, with odds and ends lying about, also shows this. It was not worth copyrighting.

E. M. R.—While your prints are of average technical quality the subjects are not of great interest or the compositions particularly attractive. We would suggest that you read carefully such a book as Poore's "Pictorial Composition" as an aid to the selection of subjects and the composition of the subjects.

W. H. R.—"Vacation-Days" is well composed, but the print would have been better on a softer-working paper. Of course, the negative has been fogged, which accounts for the light-area at the right of the print. You have not chosen a suitable background for the portrait. Half of the background consists of the distant view beyond the tree-trunk, and as the former is virtually white paper the contrast between it and the tree-trunk and the face is too violent.



HARVESTING IN THE HILL-COUNTRY

D. VINCENT SMITH

THIRD PRIZE — BEGINNERS' CONTEST



# Photo-Era Exposure-Guide

Calculated to give Full Shadow-Detail, at Sea-Level, 42° N. Lat.

For altitudes up to 5000 feet no change need be made. From 5000 to 8000 feet take  $\frac{3}{4}$  of the time in the table. From 8000 to 12000 feet use  $\frac{1}{2}$  of the exposure in the table.

Exposure for average landscapes with light foreground, river-scenes, light-colored buildings, monuments, snow-scenes with trees in foreground. For use with Class 1 plates, stop F/8, or U. S. 4. For other plates, or stops, see the tables on the opposite page.

HOOR	MONTH AND WEATHER																			
	JAN.,					FEB., OCT.					MAR., APR.,					MAY, JUNE,				
	NOV., DEC. †					†					AUG., SEPT. ¶					JULY §				
	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull	Bright Sun	Hazy Sun	Diffused Light	Dull	Very Dull
	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
11 A.M. to 1 P.M.	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
10-11 A.M. and 1-2 P.M.	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{60}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$
9-10 A.M. and 2-3 P.M.	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{2}{3}$	$1^*$	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$1^*$	$\frac{1}{40}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{50}$	$\frac{1}{25}$	$\frac{1}{12}$	$\frac{1}{6}$	$\frac{1}{3}$
8-9 A.M. and 3-4 P.M.						$\frac{1}{5}$	$\frac{1}{2}$	$1^*$	$1\frac{1}{2}$	$3^*$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{30}$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$
7-8 A.M. and 4-5 P.M.											$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{20}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
6-7 A.M. and 5-7 P.M.											$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1^*$	$\frac{1}{15}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
5-6 A.M. and 6-7 P.M.																$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{3}$	$1\frac{1}{2}$

The exposures given are approximately correct, provided the shutter-speeds are accurately marked. In case the results are not just what you want, use the tables merely as a basis and increase or decrease the exposure to fit the conditions. Whenever possible keep the shutter-speed uniform and vary the amount of light when necessary by changing the stop. Focal-plane shutters require only one-third of the exposures stated above.

**SUBJECTS.** For other subjects, multiply the exposure for an average landscape by the number given for the class of subject.

**1/8 Studies of sky and white clouds.**

**1/4 Open views of sea and sky;** very distant landscapes; studies of rather heavy clouds; sunset- and sunrise-studies.

**1/2 Open landscapes without foreground;** open beach, harbor- and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; snow-scenes with no dark objects; most telephoto-subjects outdoors; wooded hills not far distant from lens.

**2 Landscapes with medium foreground;** landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; per-

sons, animals and moving objects at least thirty feet away from the camera.

**4 Landscapes with heavy foreground;** buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red-brick buildings and other dark objects; groups outdoors in the shade.

**8 Portraits outdoors in the shade;** very dark near objects, particularly when the image of the object nearly fills the plate and full shadow-detail is required.

**16 Badly-lighted river-banks, ravines, to glades and under the trees. Wood- interiors not open to the sky. 48 Average indoor-portraits in a well-lighted room, light surroundings.**

**PLATES.** When plates other than those in Class I are used, the exposure indicated above must be multiplied by the number given at the head of the class of plates.

# For Perpetual Reference

For other stops multiply by the number  
in the third column

As all the figures in the table opposite are based upon the use of stop F/8, or U. S. 4, it does not appear here among the ratios for other stops.

U. S. 1	F/4	× 1/4
U. S. 2	F/5.6	× 1/2
U. S. 2.4	F/6.3	× 5/8
U. S. 3	F/7	× 3/4
U. S. 8	F/11	× 2
U. S. 16	F/16	× 4
U. S. 32	F/22	× 8
U. S. 64	F/32	× 16

## Example

The factors that determine correct exposure are, first, the strength of light; second, the amount of light and dark in the subject; third, speed of plate or film; fourth, the size of diaphragm used.

To photograph an average landscape with light foreground, in Feb., 2 to 3 P.M., bright sunshine, with plate from Class 1, R. R. Lens, stop F/8 (or U. S. 4). In the table look for "Hour," and under the column headed "Bright Sunshine," note time of exposure, 1/16 second. If a smaller stop is used, for instance, F/16, then to calculate time of exposure multiply the average time given for the F/8 stop by the number in the third column of the table for other stops, opposite the diaphragm chosen. The number opposite F/16 is 4. Multiply  $1/16 \times 4 = 1/4$ . Hence, the exposure will be 1/4 second.

For other plates consult the table of plate-speeds. If a plate from Class 1/2 be used, multiply the time given for average exposure, F/8 Class 1, by the number of the class.  $1/16 \times 1/2 = 1/32$ . Hence, the exposure will be 1/32 second.

## Speeds of Plates on the American Market

Class-Numbers. No. 1, Photo-Era. No. 2, Wynne. No. 3, Watkins

Class 1/3, P. E. 156, Wy. 350, Wa.  
Ilford Monarch  
Lumière Sigma  
Marion Record  
Seed Graflex  
Wellington Extreme

Class 1/2, P. E. 128, Wy. 250, Wa.  
Ansco Speedex Film  
Barnet Super-Speed Ortho.  
Central Special  
Cramer Crown  
Eastman Speed-Film  
Hammer Special Ex. Fast  
Imperial Flashlight  
Seed Gilt Edge 30  
Wellington 'Xtra Speedy

Class 3/4, P. E. 120, Wy. 200, Wa.  
Ansco Film, N. C.  
Atlas Roll-Film  
Barnet Red Seal  
Cramer Instantaneous Iso.  
Defender Vulcan  
Ensign Film  
Hammer Extra Fast, B. L.  
Ilford Zenith  
Imperial Special Sensitive  
Paget Extra Special Rapid  
Paget Ortho. Extra Special Rapid

Class 1, P. E. 111, Wy. 180, Wa.  
American  
Barnet Extra Rapid  
Barnet Ortho. Extra Rapid  
Central Comet

Imperial Non-Filter  
Imperial Ortho. Special Sensitive  
Kodak N. C. Film  
Kodoid  
Lumière Film and Blue Label  
Marion P. S.  
Premo Film-Pack  
Seed Gilt Edge 27  
Standard Imperial Portrait  
Standard Polychrome  
Stanley Regular  
Vulcan Film  
Wellington Anti-Screen  
Wellington Film  
Wellington Speedy  
Wellington Iso. Speedy

Class 1 1/4, P. E. 90, Wy. 180, Wa.  
Cramer Banner X  
Cramer Isonon  
Cramer Spectrum  
Defender Ortho.  
Defender Ortho., N.-H.  
Eastman Extra Rapid  
Hammer Extra Fast Ortho.  
Hammer Non-Halation  
Hammer Non-Halation Ortho.  
Seed 26x  
Seed C. Ortho.  
Seed L. Ortho.  
Seed Non-Halation  
Seed Non-Halation Ortho.  
Standard Extra  
Standard Orthonon

Class 1 1/2, P. E. 84, Wy. 160, Wa.  
Cramer Anchor

Lumière Ortho. A  
Lumière Ortho. B

Class 2, P. E. 78, Wy. 120, Wa.  
Cramer Medium Iso.  
Ilford Rapid Chromatic  
Ilford Special Rapid  
Imperial Special Rapid  
Lumière Panchro. C

Class 3, P. E. 64, Wy. 90, Wa.  
Barnet Medium  
Barnet Ortho. Medium  
Cramer Trichromatic  
Cramer Fast  
Ilford Chromatic  
Ilford Empress  
Seed 23  
Stanley Commercial  
Wellington Landscape

Class 5, P. E. 56, Wy. 60, Wa.  
Cramer Commercial  
Hammer Slow  
Hammer Slow Ortho.  
Wellington Ortho. Process

Class 8, P. E. 39, Wy. 30, Wa.  
Cramer Contrast  
Cramer Slow Iso.  
Cramer Slow Iso. Non-Halation  
Ilford Halftone  
Ilford Ordinary  
Seed Process

Class 100, P. E. 11, Wy. 3, Wa.  
Lumière Autochrome



# OUR ILLUSTRATIONS

WILFRED A. FRENCH

WITH considerable forethought the rising young photographer L. L. Higgason, author of the portrait that imparted distinction to our July number, prepared for us the striking cover-illustration this month. This pleasing genre-picture, appearing also on page 282, radiates pleasurable anticipation, the spirit of giving and receiving, as well as the noblest of Christian virtues—charity. In imagination we can see this young woman in the character of an angel of mercy, visiting the hospitals, the trenches, the prisons, throughout war-ridden Europe, dispensing gifts, joy, comfort, solace, to the well and the sick, the wounded, especially the maimed, of whom many have permanently lost the sense of sight—the greatest of all blessings.

But to return to a more cheerful topic—the subject of our illustration, the fair shopper. The Christmas-spirit is cleverly conceived and well carried out, thanks to a huge armful of packages mixed with holly, and a genial countenance over all. No data.

Totally different in character, but equally graceful in sentiment, is our associate editor's Christmas contribution to PHOTO ERA readers—"A Christmas-Eve Dream." This charming conception is worthy of a poem; and this idea would have been carried out had it not meant to reduce the size of the illustration in order to accommodate the verses. The picture speaks for itself. It is eloquent in beauty, significance and workmanship. As a pictorial composition and novelty of conception, Miss Bingham's offering merits, and will undoubtedly receive, the unqualified approval of each and all who will inspect this, our Yuletide-number. Data: In professional studio; 8 x 10 Century Camera; 16½-inch Goerz Doppel Anastigmat; full opening; exposure about 5 seconds (with weak daylight and magnesium lamp in fireplace) with figure of "Santa Claus," and then 3 seconds without the figure; 8 x 10 Seed 26; pyro-soda; 8 x 10 platinum print.

Still another holiday-picture greets the eye further on—"His Christmas-Dinner." The artist, W. J. Piper, of London, achieved this intensely expressive picture a year ago, when it embellished the pages of our distinguished English cotemporary, *The Amateur Photographer*, through whose courtesy we are enabled to present it to our readers. It is a well-ordered composition. It could not be better. The hungry dog! His covetous eyes are riveted on those juicy morsels. If only he could get at them! To be sure, those luscious hams are not for him. He has no claim on them, nor is the owner even his master. How typical this picture is of the times!

That the mind of our eminent contributor, William S. Davis, is permeated with the spirit of pictorialism, must have impressed our readers long before this. He is a picture-maker to his finger-tips; yes, even mud-puddles are to him welcome subjects of artistic analysis, and readily yield to him their unsuspected charm. To enumerate the artistic excellences of the typical winter-scenes, pages 273 to 276, is but to extend fulsome praise. As this is the season of falling snow, camerists who are yet to experience the pleasures of winter-photography will study Mr. Davis' pictures with delight and profit. Data: "Veiled by Falling Flakes"—10 A.M.; during thick snow-storm; shutter set for  $\frac{1}{50}$  second; stop, F/8; Wellington Anti-Screen plate.

"A Wintry Path"—4 P.M.; on a clear day in February, looking about north; stop, F/22; Wellington Anti-Screen plate; Ingento A ray-filter; 2 seconds.

"Touched by the Frost-Spirit"—dark, cloudy day, at 2.40 P.M.; Cramer Inst. Iso; Ingento A ray-filter; stop, F/16; 3 seconds.

"Gray Winter"—10.30 A.M.; during light snow-storm; lens at F/22; Wellington Anti-Screen plate, backed;  $\frac{1}{2}$  second.

We are favored occasionally with a print from the well-filled cabinet of Horace A. Latimer, whose wonder-camera has been leveled at virtually every picturesque object in Europe. The last of his innumerable camera-pilgrimages eventuated in the French Riviera, of which an interesting nook is pictured on page 278. No; it is not a ruin of the present war, thank the Lord! These humble walls and steps speak of bygone centuries and show the ravages of time, though the place had doubtless seen many vicissitudes before it was ceded to France by the Prince of Monaco, in 1861. Monaco faces the iridescent Mediterranean, and is a favorite winter- and health- resort. Data: March; light, poor; 45 x 107 mm. Voigtländer & Sohn Stereo camera; 65 mm. Heliar lens; stop, F/9;  $\frac{1}{2}$  second; plate, hydro-metol; enlarged print, 6½ x 8½.

The pictures of still-life which illustrate W. R. Bradford's article on panchromatic photography, pages 286 to 290, reveal the skill of a true artist. They demonstrate the truth of the doctrine of simplicity and consistency in pictorial composition—the shibboleth of the creative artist. It is a genuine pleasure to behold these four masterpieces, with their judiciously placed constituents, each well lighted and rounded, imparting to the picture a plastic, stereoscopic effect. This sensation of relief is in pleasing contrast to the impression of flatness—everything in one plane that marks the average attempt to produce a still-life picture, else the central object only is well defined and the rest is unpleasantly out of focus. The student of composition and technique will find in Mr. Bradford's pictures enough to repay careful analysis and study. Data: "Apples"—Welsbach gaslight; Wollensak Optical Co.'s Velostigmat; 6-inch focus; stop, F/8; W. & W. Panchromatic plate; 1½ minutes; Hydro-Duratol developer; 5½ x 9½ enlargement on Platora B.

"Nectar and Ambrosia"—Welsbach gaslight; 4 x 5 Cycle Graphic camera; Wollensak's Verito; 6½-inch focus; stop, F/8; 4 x 5 W. & W. Panchromatic plate; 2½ minutes; Hydro-Duratol; 8 x 8½ enlargement on Eastman Royal Bromide Paper.

"The Winner"—Welsbach gaslight; 4 x 5 Cycle Graphic camera; Wollensak's 6-inch Velostigmat; stop, F/6; 4 x 5 W. & W. Panchromatic plate; 2 minutes; Hydro-Duratol; 7½ x 8½ enlargement on Cyko Buff Linen Enlarging.

"Zinnias" (commonly known as "Youth and Old Age")—Welsbach gaslight; lens at F/16; 4 minutes; large cardboard reflectors reduced time of exposure greatly; 6 x 7 enlargement.

"The Souvenir," page 292, is by Orrin Champlain, who has the happy faculty to interpret the sweetness of girlhood, as explained in his article on that subject, and exemplified by a series of portraits, in our November issue. The present picture expresses that same

beautiful sentiment in an eminent degree, the pose of head and arm yielding gracefully to the suggestion of the artist. No data.

The night-picture, by Associate Editor Phil M. Riley, page 295, shows the pictorial possibilities of the subject for competition which closes January 31. The original print is  $6\frac{1}{2} \times 8\frac{1}{2}$ , yet the greatly reduced reproduction indicates adequately the results of judicious procedure amid artificial illumination. Data: December, 8 P.M.; arc-light overhead and full moon;  $4 \times 5$  Eastman camera;  $6\frac{1}{2}$ -inch R. R. lens; stop, F/8; exposure, 5 minutes; Seed Non-Hal. Ortho; pyro-soda; print,  $6\frac{1}{2} \times 8\frac{1}{2}$  Glossy P. M. C. Bromide for reproduction.

### The Photo-Era Monthly Competition

THE entries in the competition, "Clouds in Landscape," were unusually prolific. As it has happened frequently, some participants in these competitions err by misinterpreting the spirit of the subject. In this case overemphasis of the cloud-effect, and making the landscape subservient or insignificant, led to failure, and such prints were not accepted by the jury. Many of these rejected pictures were superb representations of cloud-masses, and, returned to the entrants, will no doubt find their way again to the PHOTO-ERA offices when a competition on clouds only will be on the tapis. In the meantime, our sincere thanks to these disappointed contributors for their generous efforts, and, as already intimated, *au revoir!*

"The Lone Tree," page 297, is a noble landscape, made at sunset — which must have been a glorious one — with the mists beginning to arise, indicating the advent of mysterious night. The grandeur of the scene owes its success to the judicious use and treatment of simple means. Note the management of the tree-group and, particularly, of the foreground. Data: July 3, 1915; 7 P.M.;  $4 \times 5$  Graflex camera; 12-inch Struss Pictorial Lens; stop, F/5.5;  $\frac{1}{10}$  second; Standard Orthonon; Rodinal in tank; print, Enlarging-Cyko Buff.

The marine, by H. A. Morton, page 299, shows the good judgment of the artist in making the cloud-filled sky an adjunct instead of the principal feature, thereby fulfilling the conditions of this contest. We have here a logical, well-balanced picture, one specially suitable for interpretation by the artist-camerist, who has performed his task with laudable skill. The values throughout are true; the schooner supplies the needed aquatic life, and the scene is filled with pleasurable suggestion. It is possible that the headland, just beyond the lighthouse, is a bit too insistent. Modified, somewhat — less obtrusive — it would merge with the sky more readily. Data: October 1, 2 P.M.; sun slightly obscured; 7-inch, No. 2, F/6.8 Dagor; stop, F/16; Cramer Inst. Iso;  $\frac{1}{25}$  second; print on Normal Semi-Matte Cyko; developed in Eastman's Nepera solution.

H. A. Brodine has produced a striking picture, which, in an enlarged print, appears even to better advantage. Page 300. The clouds have been taken from another negative and, undoubtedly, are appropriate and correct, although they do not appear sufficiently convincing. But Mr. Brodine is a painstaking and conscientious worker. The camera faced the strongest light, which would account for the low key of the landscape proper. Data: September, 11 A.M.; good light;  $6\frac{1}{2} \times 8\frac{1}{2}$  view-camera; lens at F/16;  $8 \times 10$  Standard Orthonon; hydro-metol; direct Noko print; sky printed in from  $8 \times 10$  negative.

The attractive group, page 296, gives an excellent idea of each individual picture, even though reduced to small proportions. The "Cloudscape," by H. R. Neeson, is appropriately named. In general character, the composition is not unlike the much-admired land-

scape by Wm. E. Macnaughtan, in PHOTO-ERA for November, 1914. But even without this flattering comparison, Mr. Neeson's artistic achievement is a notable one, and but for the circumstance that the jury did not deem the picture a true interpretation of the subject for competition, it would have received higher recognition. Data: Wratten & Wainwright Panchromatic Plate; pyro; enlarged on Noko Buff.

The heavy cumulous clouds add greatly to the effect-iveness of the orchard-scene by B. F. Langland, a true lover and artistic interpreter of nature. The proportions are admirable, and the relationship of landscape to sky is well maintained. Data: June 25, 10 A.M.;  $3\frac{1}{2} \times 4\frac{1}{2}$  Premo Film-Plate camera; Eastman film-pack in tank with 20-minute pyro developer; Zeiss-Kodak lens, F/6.3, at full opening; 3-time ray-filter;  $\frac{1}{10}$  second; direct Cyko print.

The strongly individualized sand-dune, by H. C. Mann, is a striking presentation of the subject. The trees are characteristically black in conformity with the artist's fancy, which is to create an effect, a sharp contrast. Data: Afternoon; good light;  $5 \times 7$  Press-Graflex; 12-inch Goerz Dagor; stop, F/6.8; B. & J. 3-time color-screen;  $\frac{1}{25}$  second; Hammer Non-Hal. Ortho; pyro; direct Artura Iris print.

The sunrise, as a setting to the country-homestead, by Edwin A. Roberts, forms a picture that fittingly accompanies the lines, "The gentle morning comes apace, and bids the night depart." The pictorial design, too, is harmonious, and, as in most of this series, the color-values have been well preserved. Data: August, 5.30 A.M.;  $5 \times 7$  view-camera; 8-inch convertible R. R.; stop, F/11; 3-time color-screen; diffused light; Cramer Medium Iso; pyro in tray; print on Soft Instanto Semi-Matte; Hydro-Duratol.

The cottage by the lake, as pictured by Harry G. Phister, suggests, in pictorial design, the well-known view of Castle Chillon, on Lake Geneva. Though not picturesque, perhaps, the history of the American *châlet* may be found to be extremely interesting — if narrated by an imaginative writer. The spacing of this attractive and restful picture merits just praise. Data: Adirondacks, July 18, 1915, 12 M.; sunlight;  $6\frac{1}{2}$ -inch R. R. lens; stop, U. S. 4;  $\frac{1}{50}$  second; Hammer Ortho; pyro, enlarged from  $4 \times 5$  on Enlarging-Cyko.

The imposing mountain-view, "Gothic Spires," is one of the most successful prints from the portfolio of Alice Willis ever published in this magazine. The picture is well named, after the slender, gothic-like pinacles of the trees in the foreground which stand out boldly against the thrilling sky. The *tout ensemble* is cleverly planned and carries well. Data: July 10, 6.30 P.M.; sunset; 3A Brownie; Speed-Film; pyro in tank; enlargement made with  $4 \times 5$  Verito lens on Velours Black from sharp  $3\frac{1}{4} \times 5\frac{1}{2}$  negative.

### The Beginners' Competition

THE woodland brook, by Myra D. Scales, page 303, suggests an ideally peaceful retreat, far from baleful noises and the concomitants of war. An artist's temperament and skill are here revealed in an eminent degree, and one is tempted to burst into poetry, if possessed of that gift. Indeed, the artist, herself, supplies a verse:

"I chatter over stony ways  
In little sharps and trebles.  
I bubble into eddying bays,  
I babble on the pebbles."

Data: June, 9 A.M.; broken sunlight;  $6\frac{1}{2} \times 8\frac{1}{2}$  Century camera; Verito, 14-inch rear-combination; Seed L. Ortho; Non-Halation; Citol; Azo E Hard print.

(Continued on page 315)



# ON THE GROUND-GLASS

WILFRED A. FRENCH

## Night-Photographs

THE cessation of open-air camera-activity in London while the city is in enforced darkness, lest raiding Zeppelins be enabled to locate important places for attack, moves a paragrapher in *Photography and Focus* to remark: "Not that I think there is much sense in the arrangement at all; for if I had my way I would turn every light in London full on, and put up some new ones that would project onto the clouds, in large letters, the German word for 'Rats!' There are more people getting the splendid hump, and being maimed and killed by this infernal darkness, than would result from a Zeppelin-raid once a night and twice on Saturdays."

Participants in this subject of the PHOTO-ERA competition, which ends January 31, know by this time that complete and well-lighted night-pictures are meant, and not totally black effects with one or more series of small, bright dots designating electric lights, however clearly they may indicate the outlines of a building, bridge or street.

Satisfactory pictures of night-photographs have embellished these pages very frequently during the past fifteen years, so they are no novelty.

## A Photographer's Water-Supply

MUCH has been written about the use of pure water in the darkroom. Some photographers obtain their supply in the form of rain-water, by means of receptacles placed on the roof of their studios. Others who likewise desire to avoid chemical troubles through the use of water from the regular local supply resort to the commercial distilled water, or even prepare it themselves.

In Germany the photographers are supplied regularly with distilled water in syphons, the same as spring-water — in carboys or large bottles — in America.

There is no reason why this way of supplying water to photographers cannot be introduced in the United States. The business might not be very profitable at first, but it could be extended so that it would be.

## Photographs Without a Camera

ACCORDING to several accounts recently in the daily press, the German journal *Prometheus* gives an account by Prof. P. Lindner of his experiments in making instantaneous photographs without camera or plate. Negatives were made on gaslight paper by the use of parallel rays and the avoidance of all side-lights. Daylight was the source of light, although for photographing living objects in motion use was made of a direct-current arc-lamp, the rays of which were made parallel by means of a concave lens. Objects were placed in narrow, shallow glass dishes, and the instantaneous exposure was obtained by passing a piece of pasteboard with a slit in it before the dishes. Photographs without a camera are usually produced only by means of the Röntgen ray, but Prof. Lindner is credited with obtaining shadow-like photographs, in which the sharpness of the outline is as surprising as the simplicity of the method.

## The Scientist's Little Joke

AN eminent authority in photographic optics whose writings have appeared in PHOTO-ERA from time to time, sat for his picture to a well-known New York photographer recently. When the physicist received the finished prints, he was disappointed to find that the long parallel lines on his forehead had been carefully removed. The photographer had instructed his retoucher to make the professor look quite youthful, and supposed that his kindly intentions would be appreciated. Not so. The next day the scientist returned the portraits, saying: "I am sorry that the pictures you made of me are not truthful. Please print me another set and be sure not to eliminate the lines on my forehead. They are what I call my 'Fraunhofer' lines." (The transverse dark lines in the solar spectrum.)

## The Slanting Water-Line

Is it not strange that workers who really know better neglect to trim their prints so that the water-line in a carelessly snapped marine be made to appear absolutely level? PHOTO-ERA frequently receives attractive and well-composed water-views or seascapes in which the water is represented as running downhill to an alarming degree. I have often seen photographs in which the water-line of a pond or a lake was tilted at an angle of about twelve degrees; but to level it by trimming would necessitate reducing the area of the print about forty percent. In other words, a  $6\frac{1}{2} \times 8\frac{1}{2}$  print would need to be cut down to a  $5 \times 7$ ; the water would be level, but at the expense of the pictorial composition. This shows the importance of using a spirit-level, in making not only water-views, but architectural subjects. The camerist simply keeps one eye on the finder and the other on the level.

## The Weight of a Penny

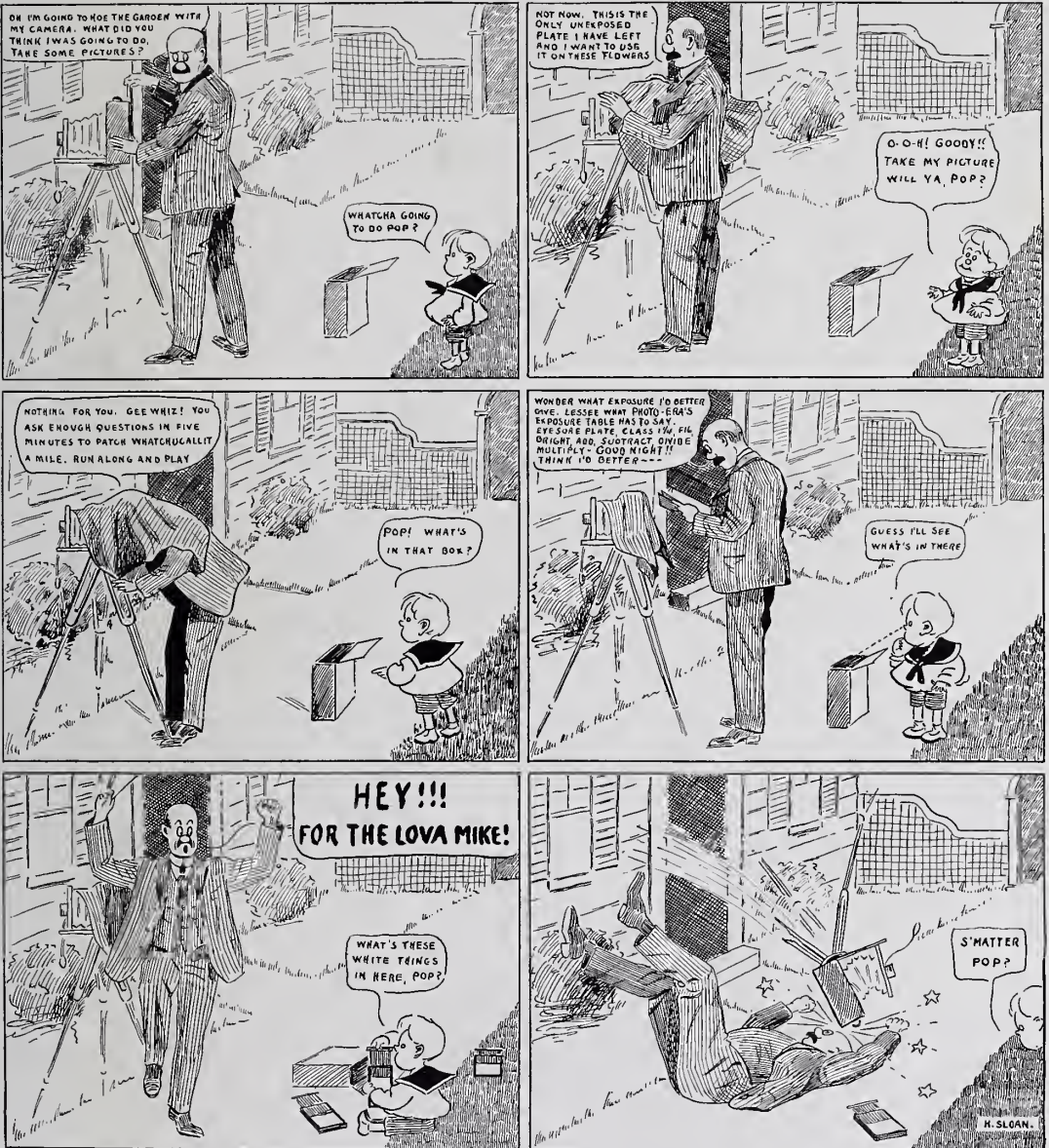
SEVERAL years ago PHOTO-ERA reprinted a practical article from an English exchange, in which the author recommended a solution containing an important chemical, in weight equal to that of a penny. I remember that several readers complained of the inefficiency of the solution, and charged the writer of the article with inaccuracy. Thereupon I investigated the matter, and discovered that the fault-finders, being loyal Americans, had taken the weight of an American copper cent (about 45 grains), whereas others — so I was informed afterward — had either procured a penny — an English bronze or copper coin, and much larger and heavier than our modern one-cent piece — or ascertained its weight (about 146 grains) in an unabridged dictionary, and got along finily.

A similar ease occurred recently and caused the amateurs concerned considerable annoyance. I suppose that in reprinting articles from English sources, which give an easy English way of ascertaining the weight of a chemical substance, American publishers ought always to specify the weight, in grains, of such common English coins as penny and half-penny. On the other hand, is it wise to call our only copper coin a "penny," instead of by its legitimate name, "cent"?

## Willie Foggitt (?)

Moral: Your Young Hopeful Will Bear Watching  
The Brighter He Is the Less He Is To Be Trusted

H. SLOAN



### A Stickler for Euphony

A CERTAIN prominent writer to whom the good, old-fashioned and quite indispensable English word "each" sounded harsh and unmusical calmly ousted it from his working-vocabulary and used in its place the conjunction "either," apparently ignoring the fact that it had quite another meaning. Having prepared and forwarded

to his printer copy for a two-page circular regarding his most recent book, he sent him the following message: "Please print at the bottom of either page the statement, 'Over!'" The printer, not wishing to make an error, sent back word asking: "Which side of the sheet?" The writer replied, "Both sides!"

This certainly is embarrassing our already intricate and overworked English language with a vengeance.





# EVENTS OF THE MONTH

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions  
are solicited for publication

## The Nude in Photography

THIS delicate subject has been agitated and discussed, pro and con, in the photographic press so frequently — though not always intelligently — that it may be well to let it rest until the public can regard the question of the nude in art in the right light.

Certain it is, however, that mere realistic camera-records of nudity have little in common with artistic interpretations of the undraped human figure, be they the product of brush or camera. First of all, a representation of the nude owes its origin to a purely artistic impulse, free of unworthy motives. Then the medium of expression must be efficient and flexible, and directed by a skilled and sympathetic artist. PHOTO-ERA has occasionally published nudes — by Garo, Sipprell, Abbott, Doty and Cutting, for example — that have been considered admirable by qualified judges and, at the same time, suitably restrained for the present state of the public mind. As it might be unwise to invite camerists in general to take up photography of the nude, there certainly is no harm for us to suggest that they analyze beautiful examples of such work, especially when executed by the artists we have named, and to join a life-class and draw from living models under the direction of an able instructor.

An admirable substitute, of which many art-students are availing themselves — because convenient and inexpensive — is to procure and study a set of Aurora Life-Studies, which exemplify in an eminently pleasing degree the possibilities in this branch of art-photography. The studies from living models, advertised in PHOTO-ERA, represent largely one female model of uncommon physical and facial beauty — nude or partly draped, and in poses that are artistically expressive and refined. The technical excellence of these subjects by a skilled artist-photographer is of the highest order.

There are two sets, A and C, each composed of twenty 5 x 7 prints, and seven sets, B, D, E, F, G, H and I, each composed of twelve 8 x 10 prints, made on Double-Weight Azo Paper. The price for any set, of either size, is \$5.00, sent express-paid, by the publisher of PHOTO-ERA, 383 Boylston Street, Boston, Mass.

## The Pittsburgh Salon

THE Photographic Section of the Academy of Science and Art of Pittsburgh announces an Annual Salon of American Pictorial Photography, to be held in Galleries L and M of the Carnegie Institute, Pittsburgh, Pa., March 2 to 31, 1916.

In making the above announcement, the Salon-Committee desires to acquaint American pictorialists with several features which have been incorporated in the 1916 Salon that distinguished it from all its predecessors. The membership includes such well-known pictorialists as Geo. Alexander, C. W. Christiansen, A. L. Coburn, J. H. Garo, J. W. Gillics, Spencer Kellogg, Jr., W. H. Porterfield, and Dr. D. J. Ruzicka.

Full information, including entry-blanks and requirements, may be had by addressing the secretary, C. E. Beeson, 1900 Frick Building, Pittsburgh, Pa. The last day of entry is February 10, 1916.

## Maurice G. Gennert

MAURICE G. GENNERT, for upwards of fifteen years senior partner of the photographic material firm of G. Gennert, 24 and 26 East 13th Street, New York, was born at Chatsworth, Ill., January 13, 1868. Shortly afterwards the family came East and settled in New Jersey, where Mr. Gennert resided until 1881, when he went to Germany and, becoming a resident of Braunschweig, entered the Gymnasium, which he attended until 1884. Returning to the United States, he attended Columbia University Arts Course, his specialty being mathematics and the dead languages. He became a member of the Delta Upsilon Fraternity. After obtaining his A.B., he accepted a tutorship in mathematics for one year. He was then prevailed upon by his father,



MAURICE G. GENNERT

Mr. G. Gennert, to give up his intention to become a professor, and entered the firm of G. Gennert in 1889. Maurice Gennert's cheery disposition, coupled with his fairness in business-transactions, added greatly to the prestige of the firm, and gained it and him many friends. Mr. Gennert was married in the early nineties, and had recently removed to New York City with his family, consisting of wife and two daughters, where he resided at 448 Riverside Drive up to the time of his death, October 2, 1915, in his forty-seventh year.

## ['A Christmas Joy for the Little Ones

THERE is no more simple and ingenious way to amuse the little ones than with the aid of "The Scissors-Book," reviewed in November. Strikingly curious figures of persons and animals may be cut out of paper with ease by almost any one, following the illustrations given in the book. See advertisement.

## LONDON LETTER

CARINE AND WILL A. CADBY

EACH exhibition of the London Salon of Photography always seems to have some particular and distinguishing feature. This year it is the absence of frames, all the pictures being hung under glass only, which, of course, materially lessened the work of exhibitors. The result is excellent, the effect being as if everything were put into passepartouts. There is an appearance of uniformity and consecutiveness that could never be obtained with a variety of frames of differing colors and shapes. It is an innovation that must surely be perpetuated, and copied elsewhere. Taken as a whole it is an interesting show; but, as at the "Royal," there are too many photographs that should never have seen the light of day at a first-class exhibition. There are 366 pictures, and to accommodate this number three screens have been placed down the middle of the gallery. The effect would have been greatly improved without these screens, and the standard of work would have been far higher had the weeding-process been drastic enough to fill only the actual walls. But when one realizes that, besides the British Isles, America, France, Italy, Holland, Scandinavia, Canada, Australia, India, South Africa, Egypt, and even Japan, are represented, it is easy to understand the difficulties of the Judging-Committee as regards elimination. Some color-prints are hung indiscriminately amongst the other work. They are mostly — at least from the writers' point of view — not very satisfactory; but singularly enough, they do not seem to clash with the ordinary prints. In this connection we could not help noticing a strong subject by J. Cruwys Richards, that easily "carried" the whole length of the gallery. It was in monotone, of a color rather like the Autotype golden sepia, only richer, and represented just a simple portrait of a lady. But the lady was there, suavely, and one could not help feeling, truthfully represented, both in pose and expression. Some color-prints were placed quite near it, and yet it easily dominated them. It was a piece of clean, straight photography carried out with distinction.

We derived an immense amount of pleasure from the three prints of Mr. F. H. Evans. If possible, he has out-Evansed himself, so much do they suggest the wonderful delicate Evans quality. We have never seen a more beautiful architectural study than "The Porches of Rheims," and as for "Rye from Winchelsea," only an Evans could have done such a unique and exquisite little landscape.

There seems to be an unusual number of child-studies in the Salon this year. Marcus Adams has again gone ahead, and his child-pictures in oil are a triumph, for he loses none of the delicacy and grace so essential to this kind of work, and yet gets the strength and carrying-power of the oil-process. To our minds, there is nothing worse than a somber, heavy child-study, and children are really the most difficult subjects for most of the processes that lean towards diffusion of focus.

The exhibits which came in for most attention have been Mr. F. J. Mortimer's battleships. We are all naturally feeling rather keen on our navy just now, and it was amusing to see how the visitors hung around these two pictures. Sentiment is altogether rather in the ascendant at the present moment, and as we walked around the Gallery to find out the ones with labels it was very evident that sentiment is the thing that sells.

Mr. Mortimer's "Vigil" had already five red "sold" labels on it, and a wayside shrine by Dan Dunlop showed the same number. A photograph of an aeroplane against a dramatic sky, called "The Raider," had also found a purchaser. Some peasant-women praying might have passed unsold, but the title, "*Pour les Soldats*," had ensured it a sale. We were surprised to find only a pretty landscape, shrewdly titled "Somewhere in France," was still unsold; but it will probably be bought before the exhibition closes.

Bertram Park, the secretary of the London Salon, has opened a portrait-studio in Dover Street. He is another recruit in the ranks of the clever amateurs who have turned professional. Mr. Hoppé, one of the first, is now famous, and one meets his photographs everywhere. Mr. Malcomb Arbuthnot and Mr. Hugh Cecil have also made names for themselves and a financial success at the same time — an eminently satisfactory proceeding! The more photographers of this class who go into photography professionally, the better, for the taste of the public will be improved and the gentle art of photography raised to a higher level. We wish Mr. Park every success.

Many amateurs now, who have no need to make money for themselves, have taken to doing work professionally for some war-fund. These are days when every one is bound to work some way or other. Two of the best-known amateurs who are doing child-studies for the Red Cross and the Belgian Fund are Miss Constance Ellis and Miss Griffith. The latter was too busy to send to the Salon this year; but Miss Ellis had two charming pictures of children there, which were well hung.

Mr. Ward Muir, who enlisted some time back in the R. A. M. C., has now been made editor of a gazette belonging to the hospital in which he is serving. It is a clever, bright little paper, with contributions from nurses and patients as well as the ward orderlies, some of whom are literary men and artists. The illustrations consisted only of drawings, but we hope next month some photographs will be included.

At the "A. P." Little Gallery there is an exhibition of Japanese photographs, some of which demonstrate that the amateur of Japan has artistic leanings. One had hoped that the Japanese would develop a distinguishing, far Eastern quality in their pictorial photography, something quite different to ours, and the natural outcome of their surroundings and ancient artistic conventions. But there is very little evidence of a different spirit at work in these prints, and the danger of the Japanese imitating Western artistic photography instead of evolving their own seems real indeed.

There was one subject the treatment of which might be taken to heart by many of us. In "At Yugashima Hot Springs" Mr. H. Yahagi has discovered the right element in which to render the nude without it being at all ridiculous or vulgar. It is a picture of Japanese family life at the bath, and a very clever study of the nude. The artist has brushed aside all our futile Western photographic dodges when attempting the nude, and relied on the steam arising from the bath for atmosphere. The result is real yet not repellent.

### Munitions from the Platinotype Works

ALL English factories suitable for the purpose are rapidly being pressed into service to manufacture shells for the British government. We understand that shells are being made at the Platinotype Company's works, where the paper for Willis & Clements is manufactured. It is said that the company's engineers and fitters have already proved themselves expert at the work.





## GERMAN PHOTO-NOTES

### A Ban on the Exportation of Films

THE scarcity of roll-films long ago led to the removal of the ban on the importation of films, says *Photographische Industrie*; but that has proved of little benefit, for although more or less large lots of films come in through Switzerland, it is doubtful whether the imports from America are sometimes quite large, the dearth is only partly alleviated. Naturally, the Kino-industry suffers more from the shortage of films than amateurs, and now it is reported that the German film-manufacturers themselves have in view the placing of a ban on the export of unexposed films in order to meet future requirements of the German trade. Although already in all districts where there is a shortage of films export is practically forbidden, it is doubtful whether the object desired will be attained. Experience so far has been that the ban on exports has only brought difficulties to the trade without corresponding benefit.

### A Big Photographic Order

H. Götz, a photographer of Breslau, has recently undertaken a large order, according to the *Deutschen Photographen-Zeitung*, under orders from the military authorities in the East, by which passes for the entire population of Poland over fifteen years of age must bear the photograph of the holder. The number of persons involved has not been determined, but it is estimated at two million. The passes are to be finished in a few months, and will require 30,000 photographs to be taken each day, employing more than sixty photographers. It appears that mostly films will be used for these portraits.

### Damages for Lost Films

A GERMAN firm that had received some films to develop and print for an amateur inquired of *Photographische Industrie* as to their liability for loss of the films. When the amateur called for his prints and films, he remarked that the films and prints were not those belonging to him, and he demanded 100 marks damages to cover a trip to Bavaria to retake the pictures. As the views were merely taken for amusement the firm offered the amateur the same number of rolls of new film as he had delivered to them; but he demanded three extra rolls to cover any failures there might be. The answer was that according to German law the amateur was entitled to payment for cost of retaking the views; but it was too much to demand payment for the cost of the journey, which could be allowed only under special circumstances. He was entitled merely to enough to pay for new views made by another person.

### War-Prices for Photographic Goods

PHOTOGRAPHY is one of those callings that have experienced a notable expansion in consequence of the war. Scarcely a soldier goes to the front without having his portrait taken in uniform to give his relatives and friends. And in the field many of the soldiers have pictures of camp and trenches taken to send to those at home. This extra consumption accounts in a measure for the scarcity of photo-materials in Germany and Austria. Naturally the price of everything near the theater of war has in many cases more than trebled.

### Photographic Trade About Normal

THE fear of dealers in photographic goods in Germany a year ago, on account of the abrupt stoppage of photographic activity, was soon dispelled. While at the beginning of the war there was much anxiety about finding customers for their stock of materials, conditions have turned out to be just the reverse, and the difficulty has been to obtain enough to satisfy the demands. But this trouble has now been largely overcome, and business is about normal. Some firms are said to have more business than usual.

### A Contrary Opinion

PHOTOGRAPHIC business conditions have declined considerably during the past two months in Germany. This has been due partly to bad weather and partly to further calls to the front. The scarcity of films also has had some effect, especially in the amateur business. Many are said to be holding back purchases, owing to subscription to the war loan. The demand from professional photographers is better, and business with them at present seems to be quite favorable.

### Dryplate Export from Germany

THE ever-increasing scarcity of dryplates is making itself felt seriously in the photo-trade of Germany and her allies. For this reason the trade-organizations in these countries have, it is reported, petitioned the government to restrict the export of dryplates to neutral countries to twenty-five percent of the total production. A decision on the subject has not yet been reached.

### The Spy Menace

CASES of spying into the condition of German trade have been reported to the Berlin Chamber of Commerce, in the form of apparently harmless inquiries regarding business-conditions, coming from England under the forged signatures of employees of German firms held as war-prisoners. German firms are warned not to answer such communications without investigation of their origin.

### Dangerous Kino-Films

THE chief of police of Berlin has issued a circular to all owners of theaters in that city warning them against permitting the use of dangerous kino-films, it having come to his attention that films in which the perforations have become worn, and so apt to get torn while being exhibited, were being used. The danger from using such films lies in the possibility of a tear stopping their movement and causing their taking fire from the heat of the apparatus.

### Customs Duty on Films in England

A PROPOSAL of the English government to place a duty of 33½ percent on photographic films has been accepted by the House of Commons. Heretofore there has been no duty on films.

### New Studios Opened

NOTWITHSTANDING the war-conditions in Germany, the photographers appear to be kept comparatively busy. *Photographische Industrie* reports the opening of several new "ateliers" in various cities of that country.



## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.*

**THE SPELL OF SPAIN.** By Keith Clark. 52 color-plates and photo-illustrations; map of Spain; 439 pp.; 8vo; decorated art-cover. \$2.50 net; postpaid, \$2.70. Boston, U. S. A.: The Page Company.

A book of prolonged interest — the land of the Cid, of Cervantes and Columbus; of Ferdinand and Isabella; of Velasquez and Murillo; of the Alhambra and the Escorial; of Carmen and bull-fights; of imposing cathedrals and Moorish palaces.

The narrative consists largely of a dialogue between two women traveling-companions. After visits to Gibraltar and Tangier, the journey through Spain (the Iberian Peninsula) begins at Cadiz and continues through Seville, Cordova, Ronda, Granada, Toledo, Madrid, Escorial, Segovia, Avila and Burgos. Historical associations, bits of romance, critical comments of fights, pictures, personages and travelers' experiences — all retold and described in a frank, interesting manner, and diversified by numerous pictorial illustrations, constitute a story that will surely appeal to the student, the traveler and the casual reader.

**THE GRAPHIC ARTS AND CRAFTS YEAR-BOOK, 1913-14.** Walter L. Tobey, editor. Quarto; 781 pp., and many additional exhibits; numerous illustrations. Price, cloth, \$5.00, express-paid. Hamilton, Ohio: The Republican Publishing Co.

It is a pleasure year by year to make a place for the latest issue of this our only American annual devoted to process-work and the printing-trades, for each surpasses its predecessor and is a never-failing source of interest as a record of the tremendous progress constantly being made in this important field so closely allied to photography. Untinted praise is due the editor, Mr. Walter L. Tobey, for his taste and discrimination in the herculean task of selecting the material for this many-sided treatise, and of putting it into book-form. A logical division into nine sections has done much to simplify the matter, however, as follows: I. Editorial and Review; II. Advertising-Review; III. Engraving; IV. Typography; V. Pressroom; VI. Paper and Supplies; VII. The Bindery; VIII. Efficient Management; IX. Advertisements.

In each of these departments Mr. Tobey has had the able assistance of editor-experts of high standing and influence, with the result that most of the "big" names in each respective line are to be found among the many important signed articles. Of fully equal value to the designer of printing and the photographer making illustrations for any sort of reproduction are the many superb examples of engraving and printing by almost every known method, including excellent specimens of the latest in four-color work, rotogravure and offset printing. Much of the selected material is from advertising-matter as well as from art, catalog, magazine and book-work, so that the applications to new problems are almost unlimited. Needless to say the typography, arrangement, printing, color-schemes and binding of this sumptuous volume are all but flawless.

## Our Illustrations

*(Continued from page 309)*

Among the many pictorial representations of a waterfall that have met the gaze of the Editor, few have measured up to the high standard set by the author of "The Lure of the Waterfall," page 304. Of course, our artist was favored with a delightful setting, and the living statuette furnishes the human interest in a charming way. A longer exposure might have yielded better values, a better balance of light and shade; but the water would have lost that sense of motion that is secured only by a limited exposure. Data: September, 4 P.M.; rainy, very dull; 5 x 7 Premo; 8½-inch R. R. lens; stop, U. S. 8; color-screen; ½ second; Cramer Iso; Rytol; direct Cyko print; 10 seconds by full flame gas-burner; Celeritas.

The scene pictured by D. Vincent Smith, page 305, might pass for an admirable illustration of the "Land of Plenty," and the crops in this country are reported to have been uncommonly prolific. The diagonal lines culminating in the horse-driven machine, the smiling sky, and various indications of activity, assemble to make an exceedingly interesting portrayal of the American farming-industry. Data: July, 1 P.M.; sun; 6½ x 8½ Poco camera; 10½-inch Plastigmat; stop, F/8; no color-screen; ⅓ second; Seed 27; pyro; direct print on Azo.

## Wendell G. Corthell

IN the death of Wendell G. Corthell, of Wollaston, Mass., October 16, amateur photography has lost one of its most ardent devotees. It was his principal recreation, and he gave as much time to it as his other affairs permitted. He was an extensive traveler, and most of his best known work, particularly that which accompanied his occasional articles in PHOTO-ERA and other magazines, were made abroad. Mr. Corthell was long a member of the Boston Camera Club, and as chairman of the New England jury of the American Salon he made a much wider circle of friends, to whom the news of his death will bring a sincere feeling of regret.

## Winter-Activities for Camera-Users

ALTHOUGH the camerist will find plenty of opportunities to photograph in the open during the winter-months, there will be many days when outdoor-photography is not to be thought of. Fortunately, there are various home amusements for the energetic amateur which yield both pleasure and profit.

For instance, there is the projection of lantern-slides and postcards with efficient and inexpensive machines. Excellent ones are advertised in PHOTO-ERA. Making enlargements from film- or plate-negatives is another useful diversion covered by PHOTO-ERA advertisements.

The preparation of lantern-slides or window-transparencies; coloring photographic prints; photographing the home or one's friends by flashlight; making filing-cabinets for negatives and prints, or framing prints by the new passepartout method are other delightful forms of home-amusement for the amateur photographer.

These various activities are described in detail in a series of articles by Wilfred A. French, in PHOTO-ERA for January, February and March, 1913. A charming paper, "Winter-Activities," by Virginia F. Clutton, appeared in PHOTO-ERA, November, 1912. Numerous articles on these subjects, by other practical workers, will be found in PHOTO-ERA by consulting the yearly indexes of the magazine. Copies containing a complete article on any form of photographic home-amusement will be sent for 25 cents each, as long as they last.



## WITH THE TRADE

### A Novelty in Enlarging

PINKHAM & SMITH COMPANY, of Boston, U. S. A., have started a novelty in their busy photo-finishing department. Their enlargements, from sharp negatives, are now made — if so desired — with the Smith Soft-Focus lens, giving them a pleasing atmospheric effect, very much resembling enlargements made directly from soft-focus negatives. There is no extra charge for using this method. Pinkham & Smith Company state that they are the first photo-finishing firm to produce artistic enlargements in just this way, and they confidently anticipate a large amount of such business.

### A New Ilex Shutter

AN entirely new shutter which has never before been offered to the American trade has recently been placed upon the market by the Ilex Optical Company, Rochester, N. Y. It is known as the No. 00 Acme, and although the manufacturers inform us that it is the smallest high-grade shutter on the market, it includes in its construction the well-known Ilex wheel-arrangement which ensures exposures of uniform duration when set for any given time, whether the camera be held in a vertical or horizontal position. The mechanism is unaffected by heat, cold, dust or dampness.

### Portland Photo-Supply Co. in a New Home

NOR long ago a disastrous fire destroyed practically the entire stock of the Portland Photo-Supply Company, Portland, Ore. Newer, larger and better quarters were soon found, however, in a more desirable location, and have just been opened with prospects of a better business than ever. This is the only firm in Portland doing an exclusively photo-supply business. High-class amateurs and the best professionals have long been its regular patrons, and the personnel of the company enjoys the esteem and respect of all who have had dealings with it.

### An Ansco for Christmas

AN attractive little booklet has been issued by the Ansco Company which pleasingly sets forth the idea that a camera is the most prized gift of all, and that to receive one makes Christmas joys last throughout the year. These indisputable facts are followed by brief descriptions and prices of the various Ansco cameras, from vest-pocket to postcard size, including the Buster Brown and several Speedex models. Altogether it should prove as effective a piece of publicity as it is attractive.

### True Direct Color-Photography]

SINCE the advent of the Lumière Autochrome, in 1907, many attempts have been made, in Europe and America, to invent a rival process of *direct* color-photography that would produce results as simply and quickly and as beautiful and accurate as Autochrome plates. These Autochrome plates, still made at the Lumière plant in France, are being imported in quantities to meet the needs of numerous consumers.

Fortunes have been spent to produce color-photographs on paper; but we know of no simple and successful process. Certain specially prepared papers to accomplish this object have been advertised in a limited way; but PHOTO-ERA has steadfastly declined to advertise or recommend them, knowing the method to be notoriously imperfect.

Nothing now on the market can possibly approach, in perfection of results, the popular Autochrome process of *direct* color-photography, unless it be the Paget Color-Process, and the Kodachrome Process for professional portraiture.

The results obtained on Autochrome plates are exquisitely beautiful in delicacy, transparency and fidelity of the natural colors. The work is accomplished with positive success by any intelligent person, using any size of plate camera, or film-camera with plate-attachment, an exposure-meter giving the correct exposure. No special equipment necessary beyond an inexpensive light-filter.

Beautiful examples of Autochromes may be seen in almost any enterprising photo-supply store.

### Eastman Kodak Company Paying Large Dividends

THE directors of the Eastman Kodak Company recently declared an extra dividend of 12½ per cent on the company's common stock. This is the largest dividend ever declared by the company, and brings the total extra dividends on common stock of the company declared this year up to 50 percent. Besides this, common stockholders will receive the regular dividend of 10 percent for the year.

It was stated that the directors of the company at their January meeting probably would declare a dividend of \$1,000,000 to be paid employees of the company.

### Professional Photography Abroad

THE baleful effect of the European war upon the practice of the photographic profession is beginning to make itself felt in all of the belligerent countries. At a time when every able-bodied man and many women are wanted for military service, the want-advertising of our English exchanges is conspicuous for its reversal of the usual order — a "Situations Vacant" department far in excess of "Situations Wanted." One notices, too, the increased demand for young women as operators as well as receptionists, retouchers, colorists and printers; also, when men are wanted, the frequent repetition of the formula "ineligible for military service."

In Germany, so our exchanges tell us, much of the studio-work is being carried on by women because of the absence of men; and now comes the suggestion, already being adopted in want-advertising, that assistants be obtained from the ranks of semi-professionals — "professional-amateurs" the Germans call them — men and women engaged in other pursuits who take pay for occasional photographic work in order to make the camera-hobby self-supporting.

"God bless us every one," said Tiny Tim.



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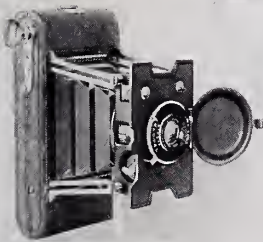
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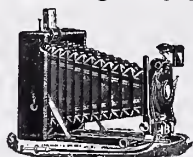
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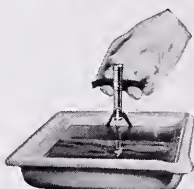
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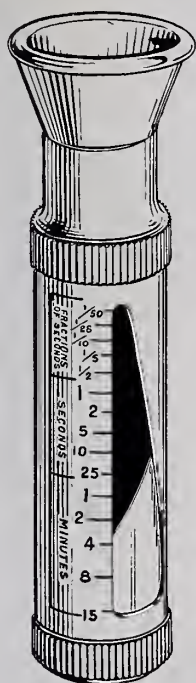
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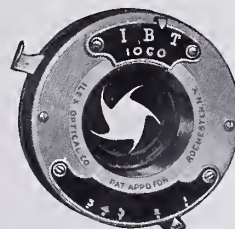
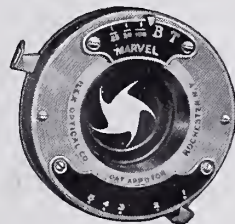
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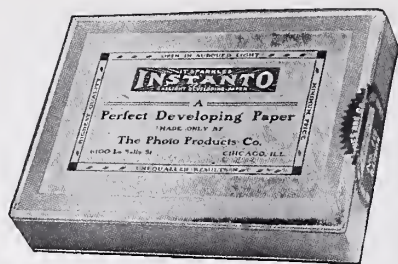
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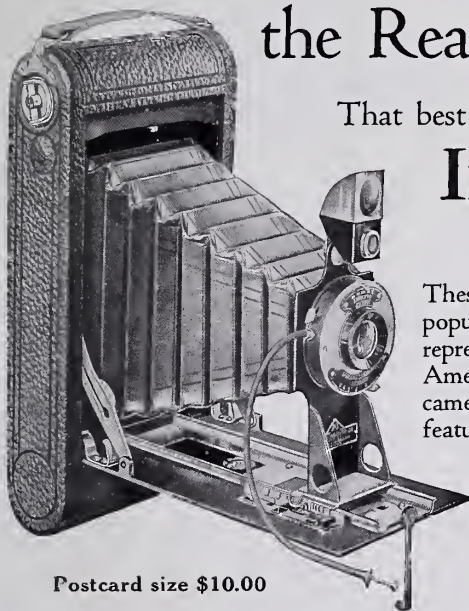
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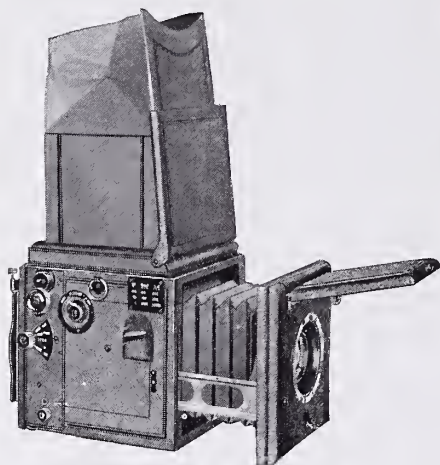
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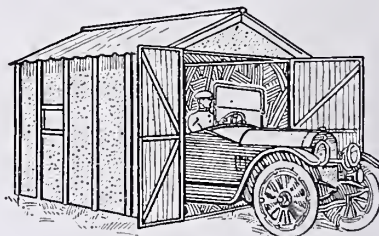
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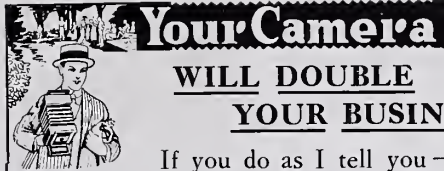
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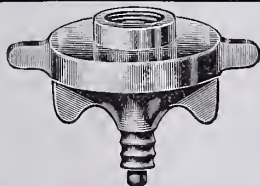
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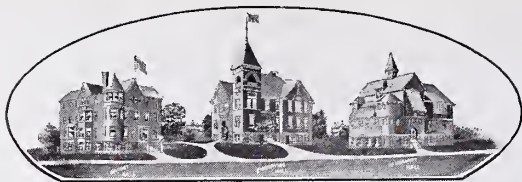
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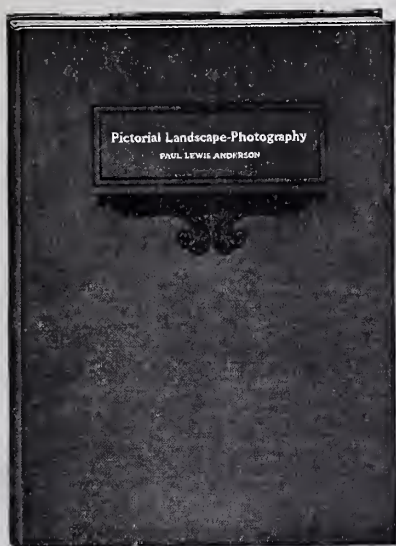
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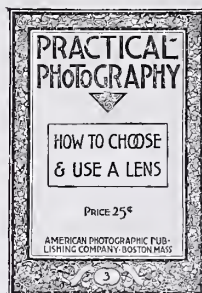
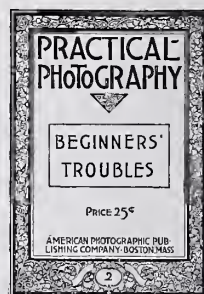
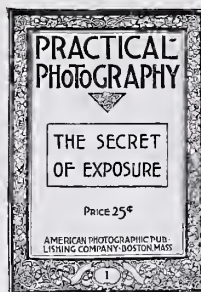
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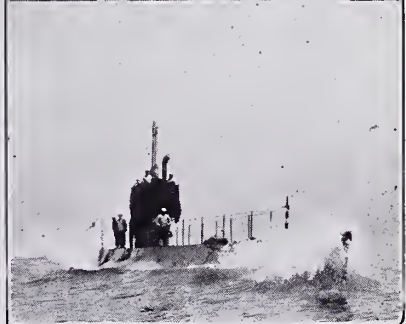
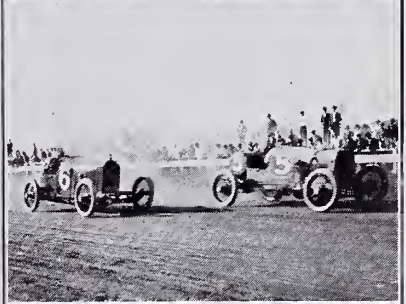
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Just a trifle larger than the picture it makes, it can be carried in even a boy's pocket or a lady's handbag.

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Loads in daylight and invites by its appearance that confidence which it fulfills in results.

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# Eastman Kodak Company

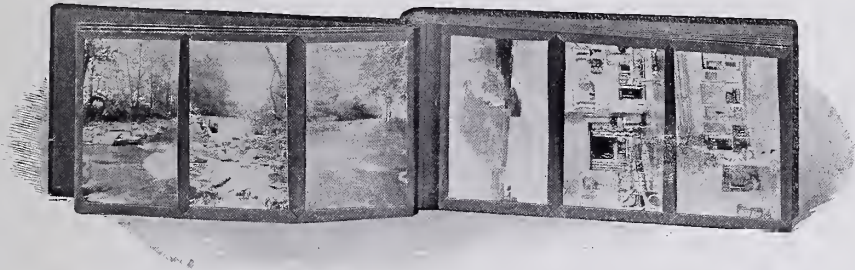
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## You'll Want an Album.

If there is anything harder to keep track of than loose prints we have yet to make the discovery. Even the proverbial collar button is hardly more elusive. We put the prints between the pages of a book and then promptly forget *which* book and have to ransack the entire library in consequence. We put them in a box and from that time on that box seems to take particular delight in secreting itself in dark corners and out of the way nooks. And if we put them in an envelope, their ultimate destination is pretty sure to be the waste basket.

bunch of loose prints dumped out of an envelope ever could. And the interest of the album pictures may be heightened by their arrangement, titles etc. An album provides a never-ending source of enjoyment for yourself and your friends—it is the one book in your library whose story can never grow tiresome.

Any album is well worth while but it is the Kodak Album that makes a particular appeal because of its obvious convenience. Pocket strips at the top and bottom of its pages take the place of paste or other adhesive. The prints



The Kodak Album.

There is just one way to keep pictures and that is between the covers of an album. The album is always easy of access, any one of the line of Kodak albums, for example, is handsome enough to be a real ornament on the library table. You always know where the album is and between its protecting pages the prints are kept clean and untorn.

Then too, the prints look so much better nicely mounted on album leaves. They show up to their best advantage and the continuity of the picture story is properly maintained. Vacation pictures grouped together on succeeding pages tell their interesting story in a much more connected fashion than a

are not mounted at all—they are simply slipped in the pocket strips from which they cannot be removed except by hand. To put your prints in the Kodak Album is the work of an instant. The cover is of handsome grain leather and the leaves are black with linen finish. The price ranges from \$2.25 to \$3.50 according to size and style.

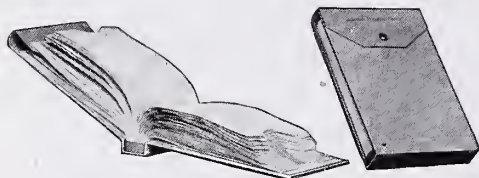
In connection with the Kodak Album, or in fact any print album, the wise amateur will provide himself with an Eastman Film Negative Album. The Eastman Film Negative Album does for negatives what the Kodak Album does for prints. It insures the negatives against loss and protects them from becoming scratched, torn or soiled. Now



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that you are using an Autographic Kodak the preservation of your negatives becomes even more necessary. The important data appearing below each negative should be easily acces-



Eastman Film Negative Album.

sible at all times or much of its value is lost. Besides its other uses, the Eastman Film Negative Album will provide a reference book that will soon become invaluable.

## The Price.

For 100 negatives, $1\frac{1}{8} \times 2\frac{1}{2}$	- -	\$0.75
For 100 negatives, $2\frac{1}{2} \times 4\frac{1}{4}$ , or smaller	- -	.75
For 100 negatives, $3\frac{1}{4} \times 4\frac{1}{4}$ , or $4 \times 5$	- -	1.00
For 100 negatives, $3\frac{1}{4} \times 5\frac{1}{2}$ , or smaller	- -	1.00
For 100 negatives, $5 \times 7$ , or smaller	- -	1.50

## MAKING THE VACATION PRINTS.

Naturally, you will take a Kodak with you—vacation pictures are often the best of all. And, naturally, you will take along a Kodak Film Tank so that you can develop your films when you wish, where you will. These will be included in your vacation kit as a matter of course. But bear in mind that the Kodak and the Film Tank alone cannot contribute *all* the fun that photography holds for you. Your pleasure in the finished print is so great that you no sooner take the picture than you want to see it in its finished form. The negatives from the Kodak Film Tank offer some satisfaction but the pleasure cycle is not complete until you have the print. History tells us that curiosity killed the cat. It is a wonder that the mortality

among amateur photographers has not been greater because their curiosity to see the finished work of their Kodaks is all-consuming—and yet some of them must wait weeks before they get within range of a finishing department.

Well, why not finish up the prints yourself wherever you may be, whether it be the primitive camp or the ultra-modern summer resort? The Kodak system of completeness and simplicity is impervious to the influence of environment. It works equally well in the brown stone front on Fifth Avenue or the rough log cabin in the wilds. The Kodak Film Tank settles the problem of developing and, as far as printing goes—why there is really no problem at all. If gas or electricity is available well and good; if not, why, no matter.

Kodak Velvet Green is an ideal paper for some of your vacation negatives, particularly landscapes or marines for the natural tint of the paper is the color of field and water—and *Kodak Velvet Green prints by daylight*. Wherever you may go, you cannot get a great ways from daylight. But Kodak Velvet Green is intended for the occasional print—it can never supplant Velox, for it has not the versatility of the “amateur’s own paper.” Make the bulk of



Kodak Magnesium Ribbon Holder.

your prints on Velox and carry your printing light right in your vest pocket—you can if you provide yourself with a Kodak Magnesium Ribbon Holder.

This extremely handy little apparatus provides a most convenient method of

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Kodak "Maskit" Printing Frame.

burning magnesium ribbon for photographic purposes. It comprises at once a compact magazine for storing the ribbon, a convenient holder for burning it, and a ready means of measuring definite lengths of the ribbon for printing on Velox and other gas light papers. It produces an intense white light the amount of which is determined by the length of ribbon projecting from the end of the holder. In this way the exposure may be accurately measured and any number of prints exposed exactly alike. The holder contains sufficient

ribbon for approximately three hundred average exposures.

For a printing frame you will want the Kodak "Maskit" because it is the simplest and most efficient device of its kind and because the "Maskit" locks the mask and negative so tightly together *that they cannot slip*. And not only does it prevent slipping, it also insures uniform white margins on all four sides of the print, providing standard size paper be used. In other words, no trimming is necessary—and that means something when you're a long way from a trimmer. The Kodak "Maskit" Printing Frame ranges in price from forty to fifty cents, according to size.

You will be surprised how little space the trays, chemicals (by the way, be sure they are E. K. Tested) necessary for the developing and fixing of the prints, occupy. They will fit in almost any old place. It may also be something of a surprise to find the pleasure these trays and chemicals help to make possible. The "other half" of photography presents one of its most delightful phases.

*A first-aid to the time exposure.*

## The Universal Clamp

Virtually a pocket tripod, occupying scarcely more room in the pocket than a bunch of keys.

The unexpected time exposure always happens and the chance for a long desired picture, demanding a time exposure, is quite apt to present itself when your tripod is safe at home. At such times the Universal Clamp provides a satisfactory substitute.

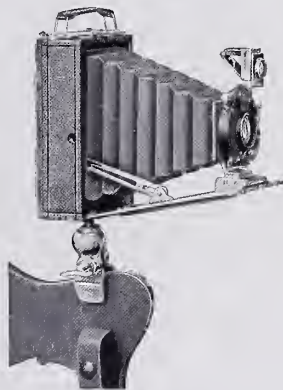
It may be screwed into the tripod socket for any Kodak, Premo, Brownie or other camera of standard amateur sizes, and attached to a chair, fence, the front board of an automobile or other object which may be at hand.

It is constructed on the ball and socket principle, so that the camera may be quickly swung into any position desired.

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*Anastigmatic  
and  
Autographic*

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## The New 3<sup>A</sup> KODAK

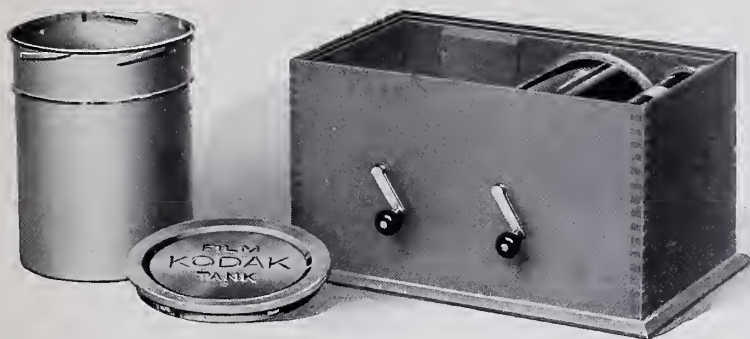
Has the autographic feature whereby you can date and title your films *at the time of exposure*, is fitted with the new Kodak Anastigmat *f. 7.7* lens—a lens that leaves nothing to be desired in definition (sharpness) and flatness of field and has more speed than even the best of the Rapid Rectilinear lenses.

The shutter is the Kodak Ball Bearing with instantaneous speeds of  $\frac{1}{25}$ ,  $\frac{1}{50}$  and  $\frac{1}{100}$  of a second and, of course, the usual time and “bulb” actions. High grade in every detail.

No. 3 <sup>A</sup> Autographic Kodak, pictures $3\frac{1}{4} \times 5\frac{1}{2}$ , Kodak Anastigmat lens <i>f. 7.7</i> , . . . . .	\$27.50
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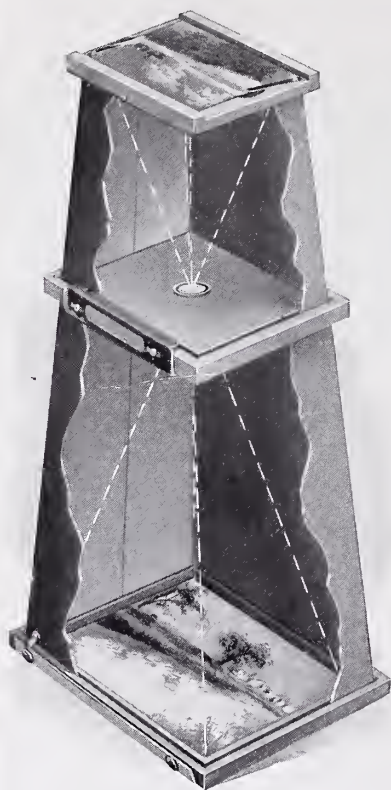
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*The large print  
The easy way*

with the

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No focusing—no dark-room.

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V. P. Kodak Enlarging Camera, for $3\frac{1}{4} \times 5\frac{1}{2}$ enlargements from $1\frac{1}{2} \times 2\frac{1}{2}$ negatives,	- - -	\$1.75
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